

PSYCHOLOGICAL ABSTRACTS

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GENERAL

3360. [Anon.] In memoriam—L. Pierce Clark. *Psychoanal. Rev.*, 1934, 21, 121-130.—Organizer of the first psychoanalytic sanatorium of its kind in America, Clark succumbed to coronary thrombosis in New York City on December 3, 1933. Born at Ingleside, June 15, 1870, Dr. Clark received his early education at Naples (N. Y.) Academy, and was given his medical degree at N.Y.U. in 1892. He began his monumental work with convulsive disorders at Craig Colony, N. Y., and in 1903 was awarded the Stevens Triennial Prize of Columbia University for original research for his study *Status Epilepticus*. Both in this country and abroad he stood foremost in the fields of psychiatry and neurology, and was an ardent student of Freud. His publications were extensive and various; a complete list is included.—L. S. Selling (Institute for Juvenile Research).

3361. Barychnikov, I. [Cyclographic method of control of spatial orientation of the blind.] *Sovet. psikhotekh.*, 1932, 5, 292-294.—Description of the apparatus used to record photographically the wanderings of blind subjects, who received the direction to proceed toward the source of an auditory signal and then return to the point of departure. A bell was placed behind a photographic apparatus. Little electric ampullae fastened on the head and ankles of the subject left a luminous tracing on the photographic plate. The results obtained are not yet sufficient to establish the existence of the various types of behavior studied.—(Courtesy *Année psychol.*)

3362. Baumgarten, F. Otto Lipmann—psychologist. *Person. J.*, 1934, 12, 324-327.—R. R. Willoughby (Clark).

3363. Beams, J. W. Measuring a millionth of a second. *Scient. Mo.*, 1934, 38, 471-473.—J. F. Dashiell (North Carolina).

3364. Black, P. T. An inexpensive efficient relay. *Science*, 1934, 79, 322.—The relay consists of a closed U-tube filled with mercury and hydrogen gas. A steel plunger, resting on one column of the mercury, is moved by a solenoid, thus bringing about changes in the level of the mercury with a consequent making or breaking of a circuit. Oxidation of terminals and arcing are avoided.—W. S. Hunter (Clark).

3365. Brown, H. C. Mind—an event in physical nature. *Phil. Rev.*, 1933, 42, No. 2.—R. R. Willoughby (Clark).

3366. Campbell, P. C. Consciousness: brain-child. East Cleveland, Ohio; Author, 1933. Pp. 109. \$1.50.—"Specifically, this essay is an attempt to show that ideopulses are really brain-functionings, that is, cerebration. It is an attempt to show that consciousness is purely (though not simply) brain-functioning; purely (and complexly) cerebration."—O. L. Harvey

(Research Division, State Prison Colony, Norfolk, Mass.)

3367. Dimpfel, R. [Ed.] *Bibliographie der Philosophie und Psychologie*. Vol. 14, 1933. (Bibliography of philosophy and psychology, Vol. 14, 1933.) Leipzig: Heims, 1934. Pp. 32. RM. 0.80.—R. R. Willoughby (Clark).

3368. Driesch, H. *Die nicht-mechanistische Biologie und ihre Vertreter*. (Non-mechanistic biology and its protagonists.) *Nova Acta Abh. Kais. Leopold.-Carolin. Dtsch. Akad. Naturforsch.*, 1933, 1, 281-287.—(*Biol. Abst.* VIII: 7633).

3369. Federn, P. Sándor Ferenczi. Gedenkrede. (Sandor Ferenczi, in memoriam.) *Int. Zsch. f. Psychoanal.*, 1933, 19, 305-321.—See VIII: 2088.—A. Slutsky (New York City).

3370. Gesell, R. A device for automatically plotting changes in rate of an interrupted signal. *Science*, 1934, 79, 275-276.—A short description.—M. G. Willoughby (Clark).

3371. Holstijn, A. J. Ueber Psyche, Geist und Seele. (On Psyche, Geist and Seele.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 145, 112-126.—*Psyche* meant originally a life-force, then for a time consciousness, and now again life. We call the total reactions of an organism psychical, those of particular organs physiological. *Geist*—which may refer to conscious thinking, ideal meaning, divine influence, *nous* or *pneuma*—has been and should be distinguished from *psyche*. The *Seele* or soul, "a part of the invisible kingdom of God" which uses the body as a dwelling or a tool, belongs among super-sensible things. For purposes of research and system the meanings of these various terms should be carefully distinguished.—C. W. Fox (Rochester).

3372. Kalif, G. T. The metaphysical basis of induction. *J. Phil.*, 1934, 31, 85-96.—On the assumptions of discrete events strung out in time and quantitative calculations of probability, the inductions on which every-day actions and scientific laws are based would be entirely incomprehensible. The confident expectations of practical life and the insights of scientific systems imply metaphysical assumptions of which the central one is the identity of the self. Without a self which persists there could be no world order and hence no science. The assumption of the identity of other selves is also necessary, for without other selves there could be no common world or communicable science. Finally, we must assume the identity of past, present, and future, otherwise the occurrence of past uniformities would have no significance for the future. "The past exists in memory, the present exists in thought and action, the future exists in anticipation." Hence, to have insight into the nature of a phenomenon is to grasp its essential character as it is at any time.—E. T. Mitchell (Beloit).

3373. King, J. L. A new phonic chronoscope. *Brit. J. Psychol.*, 1934, 24, 389-402.—This chronoscope, suitable for reaction-time experiments, appears to have many advantages over the well-known Wheatstone-Hipp instrument, and indeed over most later instruments. It shows ease of operation (the instrument is operated by D.C., interrupted by a time-controlled tuning fork, or by time-controlled A.C. mains), freedom from winding, and complete adaptability to all possible control-circuit combinations. Self-calibration of the instrument may be easily made possible. Any well-equipped laboratory workshop should be able to manufacture this apparatus.—A. F. R. Smith (Cambridge, England).
3374. Lacombe, R. *La psychologie Bergsonienne. Etude critique.* (Bergsonian psychology. Critical study.) Paris: Alcan, 1933. Pp. 325.—The author does not think that the arguments and facts brought forward by Bergson make reasonable the conception of life which he proposes. Bergson has not succeeded in justifying the two essential theses of his psychology; his critique of parallelism is not convincing, and his conception of the deeper mental life has not been established.—Math. H. Piéron (Sorbonne).
3375. Lefay-Allaux, L. *Leçons de psychologie.* (Lessons in psychology.) Paris: 1933. Pp. 398.—Math. H. Piéron (Sorbonne).
3376. Levin, M. Hughlings Jackson's views on mentation. *Arch. Neur. & Psychiat.*, 1933, 30, 848-874.—A consideration of Hughlings Jackson's analysis of mental processes as demonstrated in his Croonian lectures, with the emphasis on the physical substrate, the localization, and the evolution of mentation, and mental symptoms as evidence of dissolution. Clinical cases are cited.—V. M. Jones (Boston Psychopathic Hospital).
3377. Lipsius, F. Harald Höffding. *Arch. f. d. ges. Psychol.*, 1932, 86, 291-306.—The writer presents an outline of Höffding's contributions to psychological and philosophical thought, particularly in the fields of sensation, logic, epistemology, metaphysics, ethics, religion, and humor. Reference is made to James, Bergson, Kant, Hume, Wundt, and others.—J. J. Carlson (Aurora-on-Cayuga).
3378. Moede, W. 13. Kongress der deutschen Gesellschaft für Psychologie. (Thirteenth congress of the German Psychological Association.) *Indus. Psychotechn.*, 1933, 10, 289-290.—A brief report of the proceedings of the first meeting of the Association under the National Socialistic regime.—H. J. P. Schubert (Buffalo).
3379. Radecki, W. *Psychologia.* (Psychology.) Buenos Aires: Jacobo Peuser, 1933. Pp. 428.—The work may be divided into four parts dealing with the intellectual, affective, motor, and socio-psychological categories. It has a strong historical emphasis and a rather severe critical spirit. The problems of psychology are restated by building a hierarchy of functional mental manifestations from a limited number of basic processes which are finally amenable to scientific techniques. A system of psychology is presented which combines the basic postulates of structural psychology with some aspects of behaviorism. The laws of association are reinterpreted and "a new category introduced: that of conjunctive associations, and a new interpretation of voluntary association." An historical account of various systems of classification of the sciences, with tables, is included.—R. M. Bellows (Ohio State).
3380. Ritter, W. E. Why Aristotle invented the word *entelecheia*. (Continued.) *Quar. Rev. Biol.*, 1934, 9, 1-35.—*Entelecheia* is rendered as complete reality and discussed in relation to the whole and its parts. This is considered in connection with nutrition, metabolism, will, procreation, and sexual pleasure. Ancient and modern views are given of the relation between pleasure and sensation. The remaining sections of the paper are entitled: everything whatever and the whole and its parts, Aristotle's theology and *entelecheia*, modernized Aristotelianism, and the limitation of *entelecheia*. "That the world is vastly more indebted to Aristotle . . . for logic, science, and philosophy, than it is for religion should no longer stand in the way . . . of the world's entering into the enormous benefits of that indebtedness."—O. W. Richards (Yale).
3381. Smith, K. U. Apparatus and technique for the study of discrimination in higher vertebrates. *J. Genet. Psychol.*, 1933, 43, 462-466.—Details are furnished for a discrimination box opened by certain simple manipulations by the subject, and usable in a room containing the subject only, observations and motion pictures being taken through apertures from another room. Primarily designed for the cat, the box is adaptable to many other animal forms.—J. F. Dashiell (North Carolina).
3382. Spaulding, E. G. Freedom, necessity, and mind. *Phil. Rev.*, 1933, 42, No. 2.—R. R. Willoughby (Clark).
3383. Swabey, W. C. Locke's theory of ideas. *Phil. Rev.*, 1933, 42, 573-593.—R. R. Willoughby (Clark).
3384. [Wirth, W.] Zum 100. Geburtstag Wilhelm Wundts. (The 100th anniversary of the birth of Wilhelm Wundt.) *Arch. f. d. ges. Psychol.*, 1932, 86, 289-290.—In honor of Wilhelm Wundt the editor summarizes his achievements, indicating the debt which practically every field of psychology owes to the pioneer thought of this great scientist and philosopher.—J. J. Carlson (Aurora-on-Cayuga).
3385. Zillig, M. Gesamtbericht über den 13. Kongress der Deutschen Gesellschaft für Psychologie. (Complete proceedings of the thirteenth meeting of the German Psychological Association.) *Indus. Psychotechn.*, 1933, 10, 321-325.—More or less complete reports of papers read at the meetings are given. They fall in about the following groups: (1) German art, (2) character and types, (3) theoretical psychology, (4) practical or applied psychology, and (5) child psychology and psychology of the adolescent.—H. J. P. Schubert (Buffalo).

[See also abstracts 3440, 3467, 3607, 3724, 3814.]

SENSATION AND PERCEPTION

3386. Baldrian, K. *Blicke ins Sprachwerden und Sprachdenken der in die Lautsprache einzuführenden Taubstummen. Psychologische und sprachpsychologische Streiflichter.* (Glances into the speech development and reasoning of deaf-mutes inducted into articulate language. Psychological side-lights.) *Zsch. f. Kinderforsch.*, 1933, 41, 127-136.—Case studies of the mental processes and ideational content of 3 deaf-mute children 9-11 years old.—K. C. Pratt (Michigan Central State Teachers College).

3387. Barden, H. *Trekk av synsopfatningen og dens utvikling. Et bidrag til overgangsalderens psykologi.* (Features of visual perception and its development. A contribution to the psychology of adolescence.) Oslo: Jacob Dybwad, 1933. Pp. 56.—The first 14 pages are a theoretical discussion of theories and various problems of visual perception, in which Binet and H. Giering are mentioned as having done work on judgment of angles by children. The author finds a need for group investigations in this latter field, and the present article gives the results of school class (average number of pupils 26) group experiments for 72 girls and 84 boys, 14-18 years of age. Angles from 10° to 170° were exposed in six double series on cardboard, black on white and white on black, before the class, and the "evaluation" method was used, i.e., the pupils reacted with judgments in terms of number of degrees. Under such experimental conditions it is found that children of 14-18 judge the following angles most correctly: 30°, 45°, 90°, and 135°; 18-year-olds judge more correctly than 14-year-olds (but it is also stated that "between the 14th and 18th year there is no correlation between age and correctness of judgment" in either sex); "while the development of correctness of judgment is faster between 14 and 16 for boys than between 16 and 18, the reverse is true for the girls." This latter result is explained by the difference in time of onset of puberty in the two sexes. Bibliography.—M. L. Reymer (Mooseheart Laboratory for Child Research).

3388. Békésy, G. *Über den Knall und die Theorie des Hörens.* (Detonation and the theory of hearing.) *Phys. Zsch.*, 1933, 34, 577-582.—It was possible to determine the damping characteristics and natural period of the middle ear by means of observations on the movement of the ear-drum. The characteristics of traveling waves on the basilar membrane were tested by determinations of time difference thresholds.—C. H. Graham (Clark).

3389. Berry, G. *The psychology of progressive deafness.* *J. Amer. Med. Asso.*, 1933, 101, 1599-1603.—The author, himself hard of hearing, describes the personal reactions of patients to their handicap as seen in the child, the adolescent, the young adult, the middle-aged, and the aged. Feelings of inferiority are likely to develop at any age. Vocational and mechanical measures which may aid in adjustment are discussed. Impaired hearing is not always a liability, as is illustrated by the creative work of Thomas Edison and of Beethoven. The author commends to his

readers the work of the American Federation of Organizations for the Hard of Hearing.—D. J. Ingle (Minnesota).

3390. Bonaventura, E. *Nuovi contributi allo studio delle sensazioni tattili.* (New contributions to the study of tactile sensations.) *Scritti onore Kiesow*, 1933, 89-98.—The point of departure for the present research is given by the observations of Kiesow and Von Frey indicating that it is the pressure gradient which stimulates the receptor. Kiesow and Von Frey have shown that for small surfaces the pressure threshold increases with an increase in the excited surface. The experiments of Meissner indirectly confirm the hypothesis which excludes the existence of a tactile perception of surface. The author's experiments show: (1) For surfaces of 4-12 mm, if one increases the surface of contact, one must increase the pressure in order to secure a sensation above the differential threshold. (2) The tactile sensation is produced in the same manner whether the object in contact with the skin is a surface or merely the contour of that surface.—R. Calabresi (Rome).

3391. Brecher, G. A. *Die optokinetische Auslösung von Augenrollen und rotatorischem Nystagmus.* (The optokinetic production of eye rolling and rotary nystagmus.) *Pflüg. Arch. f. d. ges. Physiol.*, 1934, 234, 13-28.—The oscillatory synergy of eyes can be initiated not only in a static, dynamical, and optical way, but it is also optokinetically producible by viewing the center of a slowly rotating "flicker-wheel." The optokinetic effect concerns, just as the optofusional does, both forms of rolling synergy, that of the same and that of the opposite direction. By optokinetic means one can produce in many subjects a "permanent" rolling; in others, a rotatory nystagmus, which are essentially not different from each other. Eye rolling and rotatory nystagmus are directly observed through a telescope; indirectly, under application of the after-image method. Their average is about 4°. The beginning and ending of the rolling up to its maximal deviation, i.e., respective return to the rest position of the eye, consumes about 10 seconds. The aberration is connected with an apparent rotation of total space about the sagittal body axis of the experimental subject. If the "flicker-wheel" rotates above the fusion limit of its stripes, no optokinetic reaction of the eye takes place. The optokinetic rotation of one eye leads to the same rolling effect of the other eye, in so far as the flicker stimulus is taken in by one eye, i.e., the corresponding central excitation reflexly releases an associated rolling in the same direction. Figuratively one may speak of "induction" of one eye on the other. By means of two haploscope-like arranged rotating disks one can compel a considerable parallel as well as counter rolling of the eyes. Possible clinical value of optokinetic training in eye rolling is pointed out especially in the case of correcting cyclophoria. Eye rolling by optokinetic means can also be produced in animals (pigeons, rabbits); the extent of their rolling exceeds that of man.—W. Reits (Chicago).

3392. Chapin, E. K., & Firestone, F. A. Influence of phase on tone quality and loudness; the interference of subjective harmonics. *J. Acous. Soc. Amer.*, 1934, 5, 173-180.—"The data of this experiment indicate that there is a perceptible change in the loudness and quality of two harmonic tones of low frequency and high sensation level when the phase relation of the tones is changed. With proper relation of the sound pressures of two harmonic tones it is possible to combine them in such phase relation that the loudness of the combination is less than that of the lower frequency component alone. The phase settings of low frequency paired harmonics in the minimum loudness condition are found to be in agreement with the assumption that the subjective harmonics are related as cosine functions without epoch angles."—P. E. Huston (Worcester State Hospital).

3393. Coffin, H. J. A study to determine the incidence of total blindness in Braille class pupils. *Teach. Forum (Blind)*, 1934 (Mar.), 66-67.—The author presents data on the percentage of school children affected by treatment of ocular defects, and the incidence of cases of partial vision in schools and classes for the blind, as compared with earlier statistics regarding the number of totally blind children received in such classes. She finds that many so-called blind children have partial vision and that the totally blind are decreasing in number in the schools and institutions today. Within the last five years there has been a noticeable number of increases in pupils having better-than-gross object perception. She reaches the conclusion that we should limit the use of the term "blind" to those totally without vision; that teachers need better training in hygiene of vision, conditions of lighting, and use of materials adapted to sighted pupils; that economy of effort is possible in teaching visually those things which do not require tactual presentation, where vision is adequate for such instruction; that there is need of imparting more accurate knowledge through whatever channels, for social and physical training of the totally blind child, for more frequent social contacts of blind and partially blind children with sighted pupils, and for analysis of special subjects in order to ascertain the value of these subjects for different degrees of visual deficiency.—S. S. Hawk (Southern California).

3394. Costa, A. Se le rappresentazioni di tempo possono sostituire, eliminandole, le rappresentazioni di spazio nei ciechi. (Whether temporal representations may take the place of and eliminate spatial representations in the blind.) *Arch. ital. di psicol.*, 1933, 11, 137-150.—On the basis of introspective data and facts of common observation and experience, the author declares indefensible the opinion which denies to the blind individual spatial representations, reducing his sensory world to mere successions in time.—R. E. Schwarz (V. A. Facility, Northport, N. Y.).

3395. Danesino, A. Nuove ricerche sopra l'apprezzamento di differenze spaziali nel campo delle sensazioni tattili pure. (New investigations into the estimate of spatial differences in the field of pure

tactual sensations.) *Arch. ital. di psicol.*, 1933, 11, 151-156.—Continuing his investigations into the appreciation of spatial differences by means of touch, the author proves that even with stimuli represented by three equidistant points the relative difference threshold for variations in length of the stimuli decreases regularly with the increase of the same. This fact, which seemingly does not follow the requirements of Weber's law, is brought by the author into relation with the particular conditions under which are made the estimates of the spatial differences in the pure tactual field.—R. E. Schwarz (V. A. Facility, Northport, N. Y.).

3396. Durup, G., & Piéron, H. Recherches au sujet de l'interprétation du phénomène de Purkinje par des différences dans les courbes de sensation des récepteurs chromatiques. (Research on the interpretation of the Purkinje phenomenon by differences in the sensation curves of the chromatic receptors.) *Année psychol.*, 1932, 1, 57-83.—The Purkinje phenomenon, very distinct though quantitatively a little reduced when the red and blue stimulations extend even a little beyond the fovea, disappears entirely even in the fovea, and is thus entirely explained by the duality of the rods and cones, without appealing to a difference in the sensation curves for the independent receptors of red and blue. The inverse phenomenon of Gallissot is verified, on the contrary, in the fovea, and one could appeal to this last mode of explanation to account for it if one could not entertain the hypothesis of an artificial elevation of the foveal threshold for blue by an inhibitory mechanism. Finally, the authors have found, contrary to classic statements, a complex behavior of the relative differential threshold around the absolute threshold. It seems that the relative differential threshold does not increase constantly in approaching the absolute threshold, but after rising, drops again.—E. F. Kemp (Clark).

3397. Fernberger, S. W., Glass, E., Hoffman, I., & Willig, M. Judgment times of different psychophysical categories. *J. Exper. Psychol.*, 1934, 17, 286-293.—It has been found that, with the use of an experimental arrangement such as that employed by Fernberger and Irwin and by Carlson, Driver and Preston, who both obtained no difference between the judgment times for the three categories of psychophysical judgment, the judgment times for the equal judgment become significantly longer, on the whole, than judgments of either less or greater if the attitude is created in the observers of not giving equal judgments unless absolutely necessary. This attitude can be created by the use of appropriate instructions. It would seem that this experiment adequately explains the differences in the results of judgment times found by Fernberger and Irwin and by Carlson, Driver and Preston, on the one hand, and by Martin and Müller, George, and Kellogg, on the other.—E. H. Kemp (Clark).

3398. Ferree, C. E., & Rand, G. A new principle in hygienic lighting. *Person. J.*, 1934, 12, 334-340.—The designers describe a new fixture for industrial

lighting which: (1) eliminates all glare from the source of light; (2) reduces glare from the work by diffusing the light before it reaches the plane of work; (3) provides a lighting unit free from reflecting surfaces which deteriorate with use and which lose their reflecting efficiency because of the collection of dust; (4) retains as nearly as possible the type of distribution of light that is given by the lamp; (5) gives the ceiling, walls and objects in the plane of work brightnesses which are not objectionably different; (6) provides a whiter light than is ordinarily obtained from commercial units; and (7) accomplishes all these results with a minimum loss of light.—(Courtesy Person. J.)

3399. Galli, A. *La percezione di "figura" e di "fondo."* (The perception of "figure" and "ground.") *Scritti onore Kiesow*, 1933, 99-116.—The author has conducted researches upon the possibility of giving a graphic reproduction of a form (profile) which might be considered either as figure or ground. The experiments involved the two sensory fields of touch-kinesthesia and vision, although only the latter are here reported. The experiments on vision utilized a tachistoscopic apparatus which made possible the projection of a meaningless profile upon a screen in such a manner that the profile itself bounded both a dark and an illuminated space. It was found that the distinction of figure and ground is subordinate to the distinct perception of what is presented as figure, the organic profile. The behavior is naturally different depending upon whether or not the profiles are simple, complicated, or of only average complication. With black and white contrast, the perception of the figure is determined by objective and subjective factors; but the author, in contrast with Rubin, has never found the influence of habit. The graphic reproduction varies accordingly as the light or the dark field is perceived as figure, even though the profile is the same in the two cases. One may have a distinct perception of a drawing presented tachistoscopically without the possibility of reproducing with exactness the contents of the representation. The drawings also reveal alterations from the figure perceived, the characteristics being emphasized. The details seem preponderant when they are detached from the ensemble of the figure and so constitute its characteristics, and also when they are not repeated regularly and symmetrically in the figure itself. The phenomenon of perceptive assimilation is found when the form, although meaningless, recalls a real object in the subject's imagination, and when there is a tendency to symmetry which leads to an alteration in the reproduced form.—R. Calabresi (Rome).

3400. Gatti, A. *L'apprezzamento tattile delle differenze spaziali.* (Tactual estimate of spatial differences.) *Arch. ital. di psicol.*, 1933, 11, 167-173.—In a series of experimental proofs, the author shows that the relative difference threshold in the tactual estimate of stimuli of different lengths applied to the skin does not follow the constancy required by Weber's law, although showing considerable regularity. This fact must be correlated with the particu-

lar conditions under which were made the estimates of the different lengths of the stimuli, and the author intends to investigate further in this direction.—R. E. Schwarz (V. A. Facility, Northport, N. Y.)

3401. Gatti, A. *La legge di Weber e il principio di semplicità (minimo mezzo).* (Weber's law and the principle of simplicity—the least means.) *Scritti onore Kiesow*, 1933, 135-139.—The author considers Weber's law, aside from all theoretical significance, simply as the expression of a psychological fact, a general phenomenon of the perceptive process. Perceptual and conceptual consciousness have peculiarities which cannot be harmonized. Weber's law reveals the way in which characteristics of the two forms of consciousness vary together, with a given perceptual object. An analogous phenomenon can be observed in sensorial illusions where there is a divergence between the characteristics of the perceived object and those of the object when measured. Perception knows only a part of the innumerable terms which one must conceive between two homogeneous stimulations. Thus one may say that perception follows a principle of simplicity or of least means (Leibniz).—R. Calabresi (Rome).

3402. Gemelli, A. *Percezione e movimento. Contributo allo studio della percezione.* (Perception and movement. Contribution to the study of perception.) *Scritti onore Kiesow*, 1933, 178-189.—For the author perception is an organization or a construct of elements which are furnished by the sense organs, an intuitive organization possessing meaning. The virtual movements of Palagyi are among the factors producing this organization. The subject himself constructs the world of perception in accordance with the external data. This construction, however, is not only a function of the present and past conscious life but also a function of the subject's goals of action. We adapt the objects of our perception to the situations in which we find ourselves. On the other hand, motor activity is continually directed by our perceptions, which permit us to adapt our movements to their goal.—R. Calabresi (Rome).

3403. Gurnee, H. *Thresholds of vertical movement of the body.* *J. Exper. Psychol.*, 1934, 17, 270-285.—Simple harmonic motion was used to oscillate vertically 3 S's 8 cm. in 8 sec., 12 sec., or 16 sec. Thresholds ranged between 1.12 and 2.0 cm. per sec. Sensitivity to upward movement was somewhat less than sensitivity to downward movement, the difference ranging between 84% and 93% for the 3 S's. Percent of right responses increased, while percent of wrong responses (movement perceived but in the wrong direction) decreased with increased velocity. S's varied from oscillation to oscillation and from day to day in duration, estimated extent, and accuracy of movement. Variability decreased as velocity increased. Correct responses usually began in the positive acceleration phase. Usual cues were cutaneous pressure and a general kinesthesia, with cutaneous pressures predominating at the fastest rate, general kinesthesia at the slowest rate. Hallucinatory movement occurred in the still periods from 18 to

38% of the time for the 3 S's. The explanation proposed for this hallucinatory movement was interpretation of some vague kinesthetic factor in terms of the mental set.—E. H. Kemp (Clark).

3404. Hecht, S., Wald, G., & Haig, C. The dark adaptation of various retinal areas. *XIV Cong. int. di fisiologia, Sunti*, 1932, 112-113.—The decrease in threshold which the eye shows during dark adaptation proceeds in 2 distinct phases. The first ends in about 3 minutes, during which the threshold drops to 1/50 of its initial value. The second part then begins, and ends in about 30 minutes, during which the threshold drops to 1/50,000 of its initial value. The first part is probably determined by the cones; the second, by the rods. With small foveal fields only the first part of the adaptation is evident. As the field is increased in size the first part of adaptation decreases somewhat in final threshold level and reaches it more slowly. The second part starts sooner, and goes lower, as the field increases in size. The time course of the second part is the same for all areas.—(Courtesy *Année psychol.*)

3405. Höfler, R. Vergleichende Untersuchung zur Rechtschreibung hörender und taubstummer Schüler. (Comparative investigation upon the orthography of normal and deaf-mute school children.) *Zsch. f. Kinderforsch.*, 1933, 41, 411-428.—The independent, spontaneous picture-descriptions made by 100 deaf-mutes and 100 normal children reveal that the former make fewer orthographical but more grammatical errors than do the children with normal hearing. It is argued that the latter are hampered in their spelling because of a confusion in word sounds, as contrasted with the relative sharpness of the visual word-form, which undergoes no such interference in deaf-mutes.—K. C. Pratt (Michigan Central State Teachers College).

3406. Kiesow, F. Considerazioni sopra gli organi periferici delle sensazioni di temperatura. Nota preliminare. (Remarks on the peripheral organs of temperature sensations. Preliminary note.) *Arch. ital. di psicol.*, 1933, 11, 157-166.—Reports on various hypotheses formulated to explain the formation of temperature sensations, and especially on the recent hypothesis of J. P. Nafe, which the author does not accept.—R. E. Schwarz (V. A. Facility, Northport, N. Y.).

3407. Klughardt, A., & Richter, M. Methods of color measurement. *Arch. Tech. Mess.*, 1933, 2, T64-65.—R. R. Willoughby (Clark).

3408. Libman, E. Observations on individual sensitiveness to pain. *J. Amer. Med. Ass.*, 1934, 102, 335-341.—General observations on individual differences in pain sensitivity from the clinician's viewpoint.—D. J. Ingle (Minnesota).

3409. Lienau, C. C. Singer's definition and the generalized law of the geometric mean in numerical estimation. *J. Exper. Psychol.*, 1934, 17, 189-222.—This discussion treats first the formal properties of the distribution law. A statement of Singer's definition and some of its implications are given, followed

by a discussion in which certain experimental results are treated in order to make more concrete the relation of Singer's formula to the probability law in its present and analogous applications. Other experiments and results are then described, and finally a tentative relation between the limen and the standard stimulus is calculated from experiment for the purpose of applying Singer's fourth postulate. The author concludes that "All parameters of Singer's definition of sensation-intensity can find interpretation through the Generalized Law of the Geometric Mean. . . . Moreover, apparently independent problems such as the description of overestimation, the connection between Weber's and Fechner's Laws, and the validity of the Phi-Gamma Hypothesis, can be viewed as aspects of the applicability of the law of the geometric mean."—E. H. Kemp (Clark).

3410. Luckiesh, M., & Moss, F. K. The human seeing-machine. *J. Franklin Inst.*, 1933, 215, 629-654.—R. R. Willoughby (Clark).

3411. Mayer, L. L. Visual fields with minimal light stimulus. *Arch. Ophth.*, 1933, 9, 353-367.—(*Biol. Abst.* VIII: 8446).

3412. Needham, J. G. The time-error in comparison judgments. *Psychol. Bull.*, 1934, 31, 229-243.—Theories of the time-error are variations of Fechner's memory image interpretation, Müller and Schumann's concept of "set," or Wada's attentional explanation. The writer suggests certain conditions that should be considered in a thoroughgoing explanation, these being developed from a historical review of 50 titles.—J. F. Dashiell (North Carolina).

3413. Pickard, R. Depth perception test. *Eye, Ear, Nose & Throat Mo.*, 1934, 13, 37.—The author devised the following simple apparatus and technique for testing the remaining monocular depth perception of individuals who have suffered the loss of vision of one eye: The apparatus consists of a cork dinner-mat, the front of which is covered with black velveteen. In this front surface are stuck 30 pins of varied length and with different colored heads. The disk is held upright some two feet in front of the patient, who is instructed to touch, with the blunt end of a pencil, all pins of a particular color. Pickard found from testing a number of monocular patients who were able to carry on their vocations successfully that 25 correct contacts out of a possible 30 were usually obtained, and he took this figure as a standard. If the patient obtained this number it was assumed that his remaining depth perception was normal.—R. J. Beitel, Jr. (Clark).

3414. Piéron, H. Le paradoxe de l'action défavorable de la lumière bleue sur l'acuité visuelle. (The paradox of the unfavorable effect of blue light on visual acuity.) *Année psychol.*, 1932, 1, 118-119.—Theoretically visual acuity should be greater in monochromatic light, and particularly in blue light, than in white light. But experiment shows that acuity is much less in blue light than in white light, or in monochromatic red. Red light gives an impression of relatively feeble luminosity but permits great distinction, while blue light gives an impression of

great clearness but leaves objects entirely indistinct. The rods are the origin of luminous impression in monochromatic blue light, and their discriminative power is always feeble, while the red light acts exclusively on the cones, which have high discriminative capacity. Acuity increases with contrast, and contrast is less in blue light than in red light. But the most striking difference is due to the existence, in normal individuals, of a notable myopia for monochromatic blue light.—*E. F. Kemp* (Clark).

3415. *Poenaru Caplesco, C.* L'absence de la douleur et du réflexe pharyngien. (The absence of pain and of the pharyngeal reflex.) *Bull. de l'acad. de med.*, 1933, 109, 418-426.—*Math. H. Piéron* (Sorbonne).

3416. *Ranson, S. W., & Magoun, H. W.* The central path of the pupilloconstrictor reflex in response to light. *Arch. Neur. & Psychiat.*, 1933, 30, 1193-1204.—The data reported were obtained from the stimulation of the brains of cats by the use of the Horsley-Clarke apparatus. Diagrams and photographs are given.—*V. M. Jones* (Boston Psychopathic Hospital).

3417. *Rubin, E.* Some elementary time experiences. *Brit. J. Psychol.*, 1934, 24, 445-449.—This paper discusses instances which show that in general time relations pertaining to the stimuli in the physical world cannot be transferred to the corresponding data of immediate experience in the stream of thought. An actually very short duration of time may have a broad, indefinite coincidence with a much longer experienced period. It is also impossible to distinguish the past from the present and from the future in very small parts of the stream of thought; the whole part appears to be past, present or future.—*M. D. Vernon* (Cambridge, England).

3418. *Silber, D. A., & Trumpaitz, J. I.* Beurteilung der Sehkraftermüdung mittels der Methodenbestimmung "Der Konvergenzstabilität" und der Reserveakkommodation. (Estimation of visual fatigue by means of the convergence-stability method of determination and of accommodation reserve.) *Arch. Hyg. u. Bakt.*, 1931-1932, 107, 127-138.—The authors measure visual fatigue by determining "convergence stability" of the eye muscles and accommodation reserve. Working girls from the "Sojus kino" Russian film factory served as subjects. They had a very trying occupation—to detect and correct deficiencies in the films, while rolling these at a great speed. This work taxes the extrinsic eye muscles enormously, and in accordance with this the authors found that the accommodation reserve gradually decreased during working hours, and that the convergence stability depended upon the optical function of the eye.—(*Biol. Abst.* VIII: 8449).

3419. *Van Waters, R. O.* Visual perception of horizontal movement. *J. Exper. Psychol.*, 1934, 17, 223-246.—When two lights were presented in a dark room and one light made to move while the other was stationary, it was found that: One light was perceived as more mobile than the other when it was smaller or fixated. One light was increasingly more

mobile when it was smaller and the speed was decreased, or when it was smaller and the difference in size increased, or when it was fixated and the speed decreased, or when it was both a fixated light and a small light. There was no change in relative mobility of one light when it was fixated and there was an increase or decrease of difference in size, or when it was fixated and fixation was varied to the right or to the left, or when the light was a right light or a left light.—*E. H. Kemp* (Clark).

3420. *Vernon, M. D.* The binocular perception of flicker. *Brit. J. Psychol.*, 1934, 24, 351-374.—The critical frequency of flicker in the monocular perception of a plain white field was found to be modified in binocular perception as follows: (1) it was reduced when the steady field presented to the other eye was brighter than the flickering field, or contained a black figure of varying complexity; (2) it was reduced when a black figure was presented in the flickering field; (3) it was increased when both fields were made to flicker at the same rate; (4) it was reduced considerably when figures were presented in both fields, especially when both fields were flickering. These phenomena were explained in terms (1) of a conflict in the binocular percept between unlike monocular percepts, and a reinforcement between like ones, and (2) of a conflict in awareness between the different features of the binocular percept, i.e. the figures and the flicker.—*M. D. Vernon* (Cambridge, England).

3421. *Woodrow, H.* The temporal indifference interval determined by the method of mean error. *J. Exper. Psychol.*, 1934, 17, 167-188.—This paper presents data on the length of the indifference interval in the case of reproductions of empty intervals bounded by instantaneous sounds. 280 subjects were used, and any one subject was confined to reproductions of just one length of interval. Errors of different individuals were regarded as samples drawn from different regions of the more widespread distribution of all the errors of a large group of subjects, and the problem was conceived as that of determining for what length of interval the mean of this larger widespread total distribution of errors was zero. With such a statistical definition the indifference interval was found to have a length of 625.3 σ .—*E. H. Kemp* (Clark).

[See also abstracts 3361, 3437, 3441, 3483, 3486, 3491, 3493, 3497, 3523, 3564, 3640, 3661, 3742, 3856, 3858.]

FEELING AND EMOTION

3422. *Honecker, M.* Die Gesinnung und ihre Arten. (The kinds of sentiment.) *Arch. f. d. ges. Psychol.*, 1932, 86, 133-148.—Three different aspects of sentiment are discussed and a final conclusion derived: through the various forms elaborated by the ethics of sentiment (*Gesinnungsethik*) may be seen the tendency to regard that which is of moral value not so much as an act of will but rather as a permanent aspect of the moral personality, and this enduring sentiment might be regarded as an indication of completeness. Its possession or lack is more than a mere

fact; it represents a value.—*J. J. Carlson* (Aurora-on-Cayuga).

[See also abstracts 3423, 3676, 3715.]

ATTENTION, MEMORY AND THOUGHT

3423. *Carter, H. D., Jones, H. E., & Shock, N. W.* An experimental study of affective factors in learning. *J. Educ. Psychol.*, 1934, 25, 203-215.—Lists of words carefully classified as pleasant, unpleasant or indifferent, with no overlapping between groups, were used in association and learning tests with 102 children in Grades VI and VII. Ease of learning correlated .40 with estimated pleasantness, .49 with galvanometric deflections, and .65 with an emotional index (a measure of the deviation of the words from indifference). P and U words elicit larger galvanometric deflections than I words. The learning scores of individuals are highest for P words, next for U words, and lowest for I words. Group differences between the three categories are statistically reliable.—*J. A. McGeech* (Missouri).

3424. *Chweitzer, A.* Quelques données sur le réapprentissage et le transfert de l'exercice. (Some data on relearning and transfer of training.) *Année psychol.*, 1932, 1, 146-152.—In general learning curves for the cancellation test present a rapid rise at first, then a slow and constant increase. But a relearning curve obtained 5 years and 4 months following the close of the original learning of 23 trials shows an appreciable positive acceleration, a rapid rise not only for the values of the original learning but also for values that the subject had not attained in original learning. The author suggests that the paradoxical rapid phase is the natural consequence of training followed by an interval. Thus progress may be slowed by a "saturation" effect, which is released by a prolonged rest. Subjects trained on the first test who undertook a similar test for the study of transfer yielded an irregular curve, with a slow rise and without apparent curvature. The results are not clear.—*E. F. Kemp* (Clark).

3425. *Dahm, A.* Aufmerksamkeit und Ich-Bewusstsein. (Attention and the consciousness of self.) Dillingen a. Donau: Schwäb. Verl., 1933. Pp. 114.—*R. R. Willoughby* (Clark).

3426. *Dashiell, J. F.* Experiments in the sifting of testimony. *Psychol. Bull.*, 1933, 30, 720.—Abstract.—*J. F. Dashiell* (North Carolina).

3427. *Foucalt, M.* La marche de la fixation d'une série de mots. (The course of fixation of a series of words.) *Année psychol.*, 1932, 1, 15-19.—Series of 12 French words were presented by means of the Chichet apparatus. The subject controlled the duration of exposure of each word. The time required for each reading, as well as number of words recited correctly, promptings given, and time required for the corrected recitation were recorded. Only the data from series requiring more than 6 readings were used in the calculations. Values of mean of time required for reading and recitation plotted against number of words correctly recited gave a hyperbole, for which

the equation $ax + by = xy$ gave a fairly satisfactory fit. Slightly different values of the constants a and b were found in series requiring 6, 7, 8, and 9 readings.—*E. F. Kemp* (Clark).

3428. *Fryer, D.* A genetic study of motivation under changing auditory situations. *Brit. J. Psychol.*, 1934, 24, 408-433.—A study was made of the effects upon the rate of work in simple arithmetic of changes in the auditory environment, a peal of five bells; and of the motivation and conscious intent of the subjects. Increases and decreases in the rate of work were closely correlated with the development of intent to work more or less quickly (except that emotional disturbances causing a temporary decrease in the rate of work sometimes accompanied the former). But changes in the objective (auditory) situation and in verbal stimulation affected the rate of work only in so far as they affected the conscious intent.—*M. D. Vernon* (Cambridge, England).

3429. *Lämmermann, H.* Die Konstanz und die Uebbarkeit von Denkleistungen. (The constancy and practice-effects of intellectual capacities.) *Indus. Psychotechn.*, 1933, 10, 349-350.—Six sentence-completion and six jumbled-sentence tests were given to 54 school children on successive days. Practice did not affect the original ranking to any marked extent, nor was there any leveling influence resulting from such practice. Repetition did not increase the reliability of any single testing. Combining the results of several testings did, however, raise the reliability. The rankings on intelligence tests are not very much changed by instruction between testings. Practice brings about only a small increase in score on an intelligence test.—*H. J. P. Schubert* (Buffalo).

3430. *McGeoch, G. O.* The whole-part problem in memorizing poetry. *J. Genet. Psychol.*, 1933, 43, 439-447.—9-, 10-, and 11-year-old children were given a poem to learn, half being instructed to use the whole method and half the pure part method. No reliable differences were obtained in either learning or 24-hour retention scores. To check the practice factor, in another experiment children were allowed to learn a poem without previous instruction as to method, and were then asked concerning the methods they used. Again no reliable differences between methods appeared in either learning or retention.—*J. F. Dashiell* (North Carolina).

3431. *Stroud, J. B., Lehman, A. F., & McCue, C.* The reliability of nonsense-syllable scores. *J. Exper. Psychol.*, 1934, 17, 294-304.—This experiment is devoted to the study of the effect of (1) length of list, (2) practice, and (3) degree of learning, upon the reliability of nonsense-syllable scores. Correlations between trial scores of comparable lists show greater reliability for the longer lists. Correlations between paired time scores of the 6-, 12-, and 18-syllable lists were .68, .87, and .62. Correlations between trials required to learn odd- and even-numbered items show significantly greater reliability for the 12- and 18-syllable lists than for the 6-syllable lists. They show no advantages of the 18-syllable over the 12-syllable

lists. Coefficients of variation and P.E.'s indicate significantly greater reliability for the longer lists in all cases except when 12-syllable trial scores are compared with 6-syllable trial scores. Correlation coefficients between scores on successive days showed no consistent variation in either direction. In the case of the 6-syllable lists, the greater the degree of learning the more reliable are the scores. The reliability of the longer lists is unaffected by the degrees of learning considered in this experiment. The general reliability of nonsense-syllable scores is indicated by obtained correlation coefficients of .60 to .80.—E. H. Kemp (Clark).

3432. Ward, L. B. Increase in retention with lapse of time. *Psychol. Bull.*, 1933, 30, 700.—Abstract.—J. F. Dashiell (North Carolina).

3433. Watson, G. Some simple observations of learning. *J. Genet. Psychol.*, 1933, 43, 447-454.—In the analysis of memorizing behavior by a very few subjects in a simple situation problems appeared indicating that "many commonly accepted theories of learning and recall did not suffice."—J. F. Dashiell (North Carolina).

[See also abstracts 3445, 3456, 3459, 3555, 3579, 3684, 3734, 3819, 3857.]

NERVOUS SYSTEM

3434. Bornstein, A. Die Reaktion der motorischen Chronaxie auf Bäder. II. Mitteilung: Nachweis des Fehlens einer humoralen Komponente. (The reaction of motor chronaxy to baths. Part 2: Proof that a humoral component is lacking.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 138, 361-364.—The previously described reaction of motor chronaxy to carbonic acid baths takes place through conduction from the skin to the motor nerves over the sympathetic system. There is no humoral conduction outside of the neural paths in this propagation of the reaction from skin to musculature.—C. W. Fox (Rochester).

3435. Cole, K. S. Alternating current conductance and direct current excitation of nerve. *Science*, 1934, 79, 164-165.—By Fourier analysis a formula is derived giving the relations between time, potential change across biological tissue, and strength of current. Determination of a constant α in this formula, known for the simple condenser hypothesis and for the Nernst diffusion hypothesis, on frog sciatic nerve and mammalian muscle suggests that the same polarization element is involved in both conductance and excitation phenomena, but that neither hypothesis in simple form represents this element.—R. R. Willoughby (Clark).

3436. Cornwell, W. S. The demonstration of intact mammalian and amphibian nervous systems by maceration of whole animals. *Science*, 1934, 79, 162-163.—Describes a method used in the demonstration of intact nervous systems of common laboratory animals.—M. G. Willoughby (Clark).

3437. Dandy, W. E. The effect of hemisection of the cochlear branch of the human auditory nerve. Preliminary report. *Bull. Johns Hopkins Hosp.*,

1934, 54, 208-210.—In partial section of the left auditory nerve in a patient with Menière's disease it was estimated that at least half of the cochlear division was cut. Audiograms two weeks later showed that sensitivity on all tones except the two highest (8192 and 12286) was the same as before operation. "It is evident that there is a redundant supply of fibers in the sensory root of this as well as in that of other cranial nerves. . . . I also feel that it is difficult to harmonize such physiological facts with the neurone theory."—D. G. Marquis (Yale).

3438. Dusser de Barenne, J. G. "Corticalization" of function and functional localization in the cerebral cortex. *Arch. Neur. & Psychiat.*, 1933, 30, 884-901.—The conclusion reached is that, with regard to the cortical representation of the somatic functions, there is not one type of functional localization in the cortex, but perhaps as many as there are senses. Vision, the author thinks, is the function which in the higher mammals has become most corticalized.—V. M. Jones (Boston Psychopathic Hospital).

3439. Globus, J. H. Neuroanatomy; a guide for the study of the form and internal structure of the brain and spinal cord. (6th ed.) Baltimore: Williams & Wilkins, 1934. Pp. 242. \$3.50.—R. R. Willoughby (Clark).

3440. Light, R. U., & Chaffee, E. L. Electrical excitation of the nervous system—introducing a new principle: remote control. Preliminary report. *Science*, 1934, 79, 299-300.—A brief description of an "apparatus designed for the purpose of removing the restrictions of time, anesthesia and restraint from experimental exploration of functions susceptible to electrical excitation."—M. G. Willoughby (Clark).

3441. Marcus, H. Die Lokalisation des Geschmackszentrums. (The localization of the center of taste.) *Acta psychiat. et neur.*, 1934, 9, 85-115.—A minute description of the case of a man who at 15 years of age, through an accident, had a small bullet lodged in his brain. The bullet was operatively removed when the patient was 40 years of age. It is concluded that there exists a center for taste in the presubicular and subicular part of the gyrus hippocampi, and possibly also on the bordering field of the gyrus dentatus. Several cuts illustrate the text. Bibliography.—M. L. Reymert (Mooseheart Laboratory for Child Research).

3442. Rushton, W. A. H. Blair's "condenser" theory of nerve excitation. *J. Gen. Physiol.*, 1934, 17, 481-486.—Blair's "condenser" theory is criticized on two grounds: It is inapplicable to currents of long duration and it does not get around certain of the difficulties in the condenser theory of which it is a modification. Qualitatively the theory has certain points which recommend it.—C. H. Graham (Clark).

3443. Sherrington, C. S. The brain and its mechanism. New York: Macmillan, 1933. Pp. 35. \$0.50.—This is the Rede lecture delivered at Cambridge in 1933. The author sketches the evolutionary functional development of the brain as an instrument for muscular control; and in the last half of the lecture

he discusses the mind-body problem. Mental experience is most closely related to those cerebral processes which are least related to neural input and output. "Space-relations in the brain seem to count mentally." ". . . nerve-inhibition must be a large factor in the working of the mind."—W. S. Hunter (Clark).

3444. Werz, R. v. *Über den Einfluss der Reizdauer auf die Bestimmung der Refraktärphase.* (On the influence of the stimulus duration upon the determination of the refractory phase.) *Pflüg. Arch. f. d. ges. Physiol.*, 1934, 234, 1-12.—The recovery of excitability which takes place during the relative refractory phase finds expression in the well-known fact that a new excitation may be evoked with proportionately less intensity the greater the distance the second stimulus is from the first. By experiments on myocardium (isolated frog ventricle), Werz demonstrates that one can obtain a curve analogous to that for the recovery process if one determines the proportionately requisite duration (threshold duration) instead of the threshold intensity of the second stimulus. A second stimulus of constant intensity may be proportionately shorter, the longer the elapsed time interval between stimuli. The curve of the recovery process which one obtains in this fashion, however, does not indicate a direct change of the chronaxy of the heart. In the main, the process of recovery consists of a change of intensity threshold (rheobase). If one has determined this and knows the chronaxy of the organ, one is able to predict the requisite duration of extra stimuli for every moment of time. The dependability of the stimulus duration on the stimulus interval is therefore only an indirect expression for the change of the rheobase. It may be quantitatively and simply derived from this by means of the general law of excitability.—W. Reits (Chicago).

[See also abstracts 3416, 3492, 3500, 3501, 3504, 3509, 3512, 3515, 3516, 3517, 3518, 3522, 3527, 3573, 3579, 3590.]

MOTOR PHENOMENA AND ACTION

3445. Anastasi, A. The effect of practice on individual differences, measured on an equal unit scale. *Psychol. Bull.*, 1933, 30, 707.—Abstract.—J. F. Dashiell (North Carolina).

3446. Baniisani, F. *Considerazioni sull'istinto di aggressione.* (Observations on the instinct of aggression.) *Scritti onore Kiesow*, 1933, 157-163.—The author is concerned with the instinct of aggression in general, with its sublimation and with the great importance attached to it by Freud and his school, as well as with its actual social and individual significance. The author believes that all experimental investigation and all knowledge are to be viewed as a sublimation of this instinct. This point of view seems fruitful not only didactically but as a means of tracing the newer instinct theories in the older diverse psychological systems and theories.—R. Calabresi (Rome).

3447. Benjamins, C. E. *Die Rolle des Kehildeckels beim Schlucken.* (The role of the epiglottis in swallowing.) *Arch. néerl. de physiol.*, 1934, 18, 447-457.—A series of photographs were made on a patient on whom a hemilaryngectomy had been performed a half year earlier. The backward flapping of the epiglottis at the time of swallowing was clearly revealed by these illustrations. At the same time, in the remaining half of the larynx, the closure of the associated mechanism of the deeper air passages could be seen.—C. P. Stone (Stanford).

3448. Bidou, G. *L'évaluation de la puissance musculaire.* (The evaluation of muscular strength.) Paris: 1933. Pp. 315.—A study of possible instruments for measuring at the bedside of a patient the strength of a muscle group, together with a study of muscular exhaustion and its curve.—Math. H. Piéron (Sorbonne).

3449. Castner, B. M. The incidence of sinistral types among children referred to a psychological clinic. *Psychol. Bull.*, 1933, 30, 727.—Abstract.—J. F. Dashiell (North Carolina).

3450. Dahlgren, U. A second method of contraction in the striated muscle of some vertebrate animals. *Science*, 1934, 79, 300-301.—Bits of somatic muscle from the tail region of a still living fish were fixed in several media, sectioned, stained, and observed under the microscope; areas of smooth muscle contraction presented themselves. This same condition was produced in living animals when exposed muscle was subjected to electric stimulation and, while contracting, made available for study by the use of cold and hot fixatives.—M. G. Willoughby (Clark).

3451. Darrow, C. W. The functional significance of the galvanic skin reflex and perspiration on the backs and palms of the hands. *Psychol. Bull.*, 1933, 30, 712.—Abstract.—J. F. Dashiell (North Carolina).

3452. Divry, —, & Evrard, —. *Réflexe palato- et linguo-labial.* (Palato- and linguo-labial reflex.) *J. belge de neur. et de psychiat.*, 1934, 34, 93-103.—The authors found that in the decerebrated cat a very distinct palato- and linguo-labial reflex (contraction of the muscle orbicularis oris) is present, sometimes showing also a maxillary component. The buccal reflex (*Mundphänomen*) was also observed, though less distinctly and less constantly. Various aspects of these reflexes in human beings have been discussed by other investigators, but they have not before been described in the decerebrated cat. The authors conclude that the palato- and linguo-labial reflexes are relatively frequent in cases where diffuse cerebral lesions may be assumed (diffuse cerebral arteriosclerosis, pseudobulbar syndrome, senile dementia, hemiplegias, infantile encephalopathies, general paralysis, parkinsonism, and to a lesser extent oligophrenia).—H. Sys (Cornell).

3453. Dondini, F. *Contributo allo studio della cronassia motoria.* (A contribution to the study of motor chronaxy.) *Cervello*, 1933, No. 1, 52.—The author checked the values of the lower limit of motor

chronaxy which have been obtained by various experimenters during the last few years, using a very exact clock apparatus on the subject's right arm. He concludes that it is necessary to revise the present normal values found for motor chronaxy.—*R. Calabresi* (Rome).

3454. Forbes, T. W. Electrical skin response methodology: audiofrequency measurements. *Psychol. Bull.*, 1933, 30, 711.—Abstract.—*J. F. Dashiell* (North Carolina).

3455. Gavini, H. Les lois de l'exercice dans les mouvements volontaires. (The laws of exercise in voluntary movements.) *Année psychol.*, 1932, 1, 84-93.—The author conducted experiments on two types of voluntary movements, consisting of pressing electric buttons, with 20 adults and 50 children from 10 to 12 years old. She concludes that the curve for repetition or exercise, in learning movements, follows a hyperbole, that is, it follows the same law as in mental work. But comparison of a very simple task (the first movement) with a slightly more complicated task (the second movement) shows besides that where the work contains intellectual elements, progress is more marked. The comparison of children's work with that of adults gives the same result, and shows to how great a degree progress is slow and feeble in the children and with what rapidity it becomes insignificant.—*E. F. Kemp* (Clark).

3456. Gilliland, A. R. The law of effect in learning. *Psychol. Bull.*, 1933, 30, 721-722.—Abstract.—*J. F. Dashiell* (North Carolina).

3457. Gley, P. Travail physique et pression moyenne. (Physical labor and average pressure.) *Trav. humain*, 1933, 1, 445-452.—*R. R. Willoughby* (Clark).

3458. Hendrickson, G., & Pechstein, L. A. Alleged criteria of insight learning: an experimental critique. *Psychol. Bull.*, 1933, 30, 723-724.—Abstract.—*J. F. Dashiell* (North Carolina).

3459. Hunter, W. S. The stimulus-neural control of behavior during and after learning. *Science*, 1934, 79, 145-151.—The author shows that there is no evidence for the theory that control is gradually turned over to proprioception as maze learning progresses, and that as habits become automatic they do not become "unconscious" in the sense of unreportable.—*R. R. Willoughby* (Clark).

3460. Kuo, K. W. [On the abolishment of the effect of mental stress on perspiration of the palm and its suppressive action on general sweating at high surrounding temperature.] *J. Orient. Med.*, 1932, 16, 471-485.—In Kuno's hot chamber sweating on the palm due to mental effort (arithmetic) was suppressed and resumed at room temperature, although the body temperature once raised in the hot chamber was not so quickly restored to normal. During a hot summer the results varied, and the perspiration on the chest responded entirely differently from that on the palm.—(*Biol. Abst.* VIII: 8463).

3461. Landis, C. The relation of startle to cardiac reactions. *Psychol. Bull.*, 1933, 30, 713-714.—Abstract.—*J. F. Dashiell* (North Carolina).

3462. Lauterbach, C. E. Shall the left-handed child be transferred? *J. Genet. Psychol.*, 1933, 43, 454-462.—This question is ordinarily answered too categorically. Data collected on cases reveal that certain points involved need consideration: (1) the degree of handedness, which is measurable; (2) the type of personality, whether self-confident or timid; (3) the motivation and method. "It is not the transfer per se which causes stuttering but the methods imposed," e.g., tying up hand, ridiculing, hitting knuckles, etc.—*J. F. Dashiell* (North Carolina).

3463. Leiri, F. Om hudens elektriska dubbelskikt och om excitationsvågen i de perifera nerverna. (On the electric two-fold conduction of the skin and on the thresholds of excitation in the peripheral nerves.) *Finska läkaresällsk. handl.*, 1933, 75, 863-891.—This highly technical article, which is illustrated by diagrams and carries an extensive bibliography, will appear in the near future in German, under the title: *Über die elektrische Doppelschicht der Haut und über die Erregungswelle in den peripheren Nerven*.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

3464. Lemming, R. Bidrag till analysen av de renala hypertonierna med hjälp av den genom sinus caroticusstryck utlösbara, depressoriska kärlreflexen. (Contribution to the analysis of renal hypertonia by the help of the depressive reflex elicited by pressure on the sinus caroticus.) *Svensk. läkart.*, 1933, 30, 309-329.—In 1866 Czermak published his now well known *Vagusdruck-Versuch*. The writer reviews critically further work in this field, especially during the last decade, and describes in detail his own experimentation, accompanied by diagrams and tables. Among his main results may be mentioned that out of 56 renal hypertonia patients he obtained an immediate decrease in blood pressure in 37 cases through the depressive reflex elicited by pressure on the sinus caroticus. This decrease varied from 4.2 to 40%. It is argued that this result points to the fact that there is frequently a neurological component in hypertonia, and that this component may play a considerable role. The method is recommended as of prognostic value in cases of renal hypertonia, as results will indicate their character to some extent.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

3465. Lindworsky, J. Zur jüngsten experimentellen Willensuntersuchung. (Concerning the most recent experimental investigation of the will.) *Arch. f. d. ges. Psychol.*, 1932, 86, 533-538.—The writer presents a brief critical analysis of a book by Hubert Rohrer, *Theorie des Willens auf experimenteller Grundlage*, considering particularly those views which are in conflict with his own. He divides his critical discussion into two sections: Part I considers Rohrer's experimental procedure; Part II examines his results under the following sub-headings: (1) will and attention; (2) the problem of motivation; (3) the kernel of Rohrer's theory of will; (4) force and strength of will.—*J. J. Carlson* (Aurora-on-Cayuga).

3466. Manzer, C. W. The effect of fatigue upon variability of output in muscular work. *J. Exper.*

Psychol., 1934, 17, 257-269.—27 college students performed a total of 297 work periods, in which the work of lifting a ten-pound weight with the flexors of the middle finger was continued to exhaustion. The following conclusions were drawn: Absolute variability decreases sharply in the early work periods of a series and fluctuates irregularly throughout the remainder of the series. Relative variability shows no regular change throughout the series. The work done with unfatigued muscles (first ten contractions) is more variable in the later periods of the series than in the earlier periods. With fatigued muscles (last ten contractions) there is no systematic change in variability throughout the series. A comparison of the work done in the first ten contractions of each work period with that done in the last ten contractions shows that the mean output of work done with fatigued muscles is one-fifth of that done with unfatigued muscles. The relative variability of work done with fatigued muscles is three times the variability of the work done with unfatigued muscles.—E. H. Kemp (Clark).

3467. Max, L. W. Experimental study of the motor theory of consciousness. *Psychol. Bull.*, 1933, 30, 714.—Abstract.—J. F. Dashiell (North Carolina).

3468. Metfessel, M., & Warren, N. D. Over-compensation by the non-preferred hand in an action-current study of simultaneous movements of the fingers. *J. Exper. Psychol.*, 1934, 17, 246-256.—1906 measurable action-current reactions and 2555 movement records were obtained from 88 subjects (23 dextrals, 22 sinistrals, 21 dextro-sinistrals, and 24 stutterers). Attempted simultaneous movements of the first two fingers of each hand were found to begin simultaneously 26.8% of the time. In the case of simultaneous movements, the average action-current lead did not significantly favor either hand. Since there was a correlation of $.59 \pm .01$ between the extents of action-current leads and movement leads, and since the two measures indicated the same hand in $79.2 \pm 1.0\%$ of the trials, movement leads seem as significant as action currents in relation to handedness. In both action-current leads and movement leads, stutterers and dextro-sinistrals resembled dextrals more than they did sinistrals. There was a significant difference between dextrals and sinistrals in both action-current leads and movement leads. Taken as a whole, there was a definite tendency for both action-current leads and movement leads to favor the hand not used in writing, probably due to over-compensation of the less-used hand in an attempt at simultaneous movement.—E. H. Kemp (Clark).

3469. Patterson, T. L. Comparative physiology of the gastric hunger mechanism. New York: 1933. Pp. 218.—The following headings indicate the field covered: the biological significance of hunger, including plants, protozoa and metazoa; comparative physiology of gastric motility in vertebrate and invertebrate animals; types of animals studied; and the gastro-neural mechanism. The latter includes the nature of the gastric response and the influence of stimulation of the vagus, sciatic and splanchnic nerves on the tonus of gastric motility. A center may exist

in the brain for the tonus of gastric motility and the dorsal vagal nucleus may act as a tonal center for the hollow visceral organs.—O. W. Richards (Yale).

3470. Rupp, H., & Baranowski, P. Über die Kraft des Menschen bei verschiedener Glieder- und Körperstellung. (Bodily strength in different positions.) *Psychotechn. Zsch.*, 1933, 8, 185-187.—This is a continuation of an article in the previous number of this journal. This section gives the author's results of his measurements of the strength of the arms when they are turned at different angles. Both arms of six subjects were tested on the dynamometer and an average strength calculated for each arm in general and when turned at different angles. The general "strength-picture" is the same for both arms. However, arm strength varies greatly at the different angles of curvature. For example, when an arm is turned towards the body more strength is produced than when turned away from the body, or toward the outside. The average strength for the inward-turned position is 29.7 kg., while that for the outward turned position is only 25 kg.—C. Burri (Chicago).

3471. Rupp, H., & Harnack, W. Über Atmung beim Arbeiten. (Breathing during work.) *Psychotechn. Zsch.*, 1933, 8, 178-185.—This is the concluding section of a series of articles which have as their purpose the study of the relationship between the rate of breathing and work. Pneumographic records were made by means of a kymograph during various kinds of typewriting, drawing, reading aloud, sleeping, singing, etc. Respiration during typing was investigated most thoroughly. Both dictation and copying of manuscripts were observed. The general results are: the rate of breathing is increased during work, and its frequency varies from little more than 0 to 100%. The rate of breathing varied according to the type of material and the method of work. Unfamiliar material caused a greater increase in the rate of breathing than familiar material, or might even cause complete disturbance. During work there was little change in the depth of breathing. However, during sleep some people breathed faster but less deeply, while others decreased their rate of breathing but not their depth.—C. Burri (Chicago).

3472. Seward, G. H. The female sex rhythm. *Psychol. Bull.*, 1934, 31, 153-192.—A review of the historical development and present status of the problem, with 167 citations. The vaginal smear technique, which has been found best, has brought out four phases in the female sex cycle throughout the mammalia; but the menstruation phenomenon in primates has not received final interpretations. The endocrinal basis of the cycle is not yet completely worked out. Effects of the female sex rhythm upon other phenomena have been determined in varying degrees of agreement: body temperature, metabolic rate, sensory functions, spontaneous activity, intensity of the sex drive and of sex desire, all seem to show some effect; while cardio-vascular changes, reflex actions, muscular strength, motor coordination, motor learning, and psychomotor efficiency, have each been

studied with conflicting results.—J. F. Dashiell (North Carolina).

3473. Stengel, A., Hammond, E. L., & Stewart, W. P. Reflexes from the knee joint. *Arch. Neur. & Psychiat.*, 1933, 30, 1328-1331.—"In the decerebrate cat with the knee joint and its innervation intact, passive flexion or extension of the knee induces contraction of the vastus externus followed, on attaining extreme flexed or extended posture, by inhibition."—V. M. Jones (Boston Psychopathic Hospital).

3474. Van Riper, C. A new test of laterality. *J. Exper. Psychol.*, 1934, 17, 305-313.—A laterality test employing the simultaneous drawing of various types of patterns on opposite sides of a vertical board was shown to differentiate groups of extremely right-handed, left-handed and ambidextrous individuals. A group of stutterers, predominantly right-handed in peripheral activities, performed similarly to the ambidextrous group. The test was shown to have high reliability for the right- and left-handed groups.—E. H. Kemp (Clark).

3475. Villarta, M. Electromiogramas reflejos. (Electromyograms of reflexes.) *Arch. de neurobiol.*, 1934, 8, 419-444.—The report of a doctoral study of the electrical phenomena accompanying various reflexes. A number of electromyographic records are presented. The typical reflexes studied, together with the locus of the electrodes, are: radial periosteum reflex, electrodes at different points on the arm; tendon biceps, electrodes on arm; patellar reflex, electrodes on thigh; Achilles tendon, electrodes on middle and lower leg. Other records are shown and physiological interpretations presented. Reference is made to kindred studies, particularly those of P. Hoffman.—R. M. Bellows (Ohio State).

3476. Visser, H. L. A. Machtswil en objectiviteit. (Will to power and objectivity.) *Mensch en Maatschappij*, 1934, 10, 1-8.—A critical consideration of Nietzsche's theory of the so-called will to power, which has been wrongly explained as an expression of bellicosity. His idea that justice is the creation of genius of some persons is of great importance to his theory. He attributes a too great significance to the sphere of power, in which culminates the moral will in his theory. The influence of Nietzsche's theory on the insight into sense is analyzed by the author; in particular, he considers the ideal of pure objectivity in science and rejects it. Nietzsche's aspiration to explain existence from inner instincts was not understood by those who are striving for exact and general criteria for knowledge.—C. Rothe (Koloniaal Instituut).

3477. Wentscher, L. Möglichkeiten und Grenzen der Anwendung des "Fallgewichts." (Possibilities and limits in the use of a falling weight.) *Arch. f. d. ges. Psychol.*, 1932, 86, 273-288.—A small metal weight 20 mm. long and 7.5 mm. in diameter and a metal pipe 300 mm. long and 8 mm. wide were used in this experiment. The subjects, two groups of 100 girls, approximately 14 years of age, were instructed to grasp the pipe in the middle, drop the weight

through the pipe, and catch it below with the same hand. This was to be repeated until the experimenter said "Stop," the latter counting the number of times the weight was caught and missed. Emotional and motor reactions were observed, and a comparison made between right and left hand performance; also between this activity and other simple mechanical tasks. Results were: (1) A correspondence was found between performance with the weight and manual skill in cardboard-cutting. (2) The task of dropping and catching the weight was found to be relatively simple from the intellectual standpoint. (3) Close agreement was found between performance with the weight and speed in executing simple mechanical tasks. (4) The small degree of correspondence between the falling-weight performance and tasks demanding manual precision indicates that the former task has little relation to careful performance. (5) Economy of movement was favorable to success in the weight experiment.—J. J. Carlson (Aurora-on-Cayuga).

3478. Zener, K. Another attempt at an experimental analysis of the psychological nature of the conditioned response. *Psychol. Bull.*, 1933, 30, 725.—Abstract.—J. F. Dashiell (North Carolina).

[See also abstracts 3361, 3415, 3434, 3486, 3490, 3491, 3492, 3502, 3504, 3508, 3510, 3512, 3514, 3515, 3516, 3520, 3521, 3522, 3597, 3615, 3616, 3636, 3663, 3703, 3715, 3793, 3836.]

PLANT AND ANIMAL BEHAVIOR

3479. Adams, D. K. Weight discrimination in rats. *Psychol. Bull.*, 1933, 30, 703.—Abstract.—J. F. Dashiell (North Carolina).

3480. Beauchamp, R. S. A. Rheotaxis in *Planaria alpina*. *J. Exper. Biol.*, 1933, 10, 113-129.—Positive rheotaxy accompanied sexual development in this planarian. Sexual development leads to migration up stream. Overcrowding occurs at the top of the stream. A few, however, produce cocoons and then become negatively rheotactic. Both starvation and completion of the sex cycle lead to change in rheotactic response and consequent migration down stream.—L. Carmichael (Brown).

3481. Bellerby, C. W. A type of maternal behavior in the normal oestrous female rabbit. *Quar. J. Exper. Physiol.*, 1934, 24, 76-83.—Nest construction in the rabbit such as occurs at the end of pseudo-pregnancy is observed in the normal oestrous female when kept in isolation.—L. Carmichael (Brown).

3482. Bruce, R. H. The influence of the lessening of the drive upon performance by white rats in a maze. *Psychol. Bull.*, 1933, 30, 722.—Abstract.—J. F. Dashiell (North Carolina).

3483. Buytendijk, F. J. J., & Fischel, W. Über die akustische Wahrnehmung des Hundes. (On auditory perception in dogs.) *Arch. néerl. de physiol.*, 1933, 18, 265-289.—Two dogs were trained, upon hearing an organ tone (the standard), to run from a stool to a table 2 meters away, where food lay ready for them. Then another tone (the variable), two

octaves higher than the standard tone, was introduced and gradually the difference between the standard and the variable was reduced until the dogs were no longer able to respond correctly to the standard tone. With retraining in the same manner, the dogs reacted correctly to a difference of a half tone. Then a radical change was introduced; the variable tone was made lower than the standard tone. With both dogs it was evident that the inversion of relations of positive and negative signals had a genuine effect on the number of errors made. In another series of experiments it was found that neither of the dogs reacted correctly to the standard tone when it was placed promiscuously in a series of 3 tones, each held for one second; success came only with two tones. If the standard tone came first no errors occurred; if it came second there were, on the average, 27% of errors; and if it came last there were 14% of errors. A third dog trained on the chord of two tones did not react correctly to the corresponding chord one octave higher.—C. P. Stone (Stanford).

3484. Carmichael, L. The development of reflexogenous zones in the fetal guinea-pig. *Psychol. Bull.*, 1933, 30, 705.—Abstract.—J. F. Dashiell (North Carolina).

3485. Carpenter, C. R. Report on field studies of the howling monkey, *Alouatta palliata inconsonans*, and the red spider monkey, *Ateles geoffroyi* Kuhl, with comparisons. *Psychol. Bull.*, 1933, 30, 734-735.—Abstract.—J. F. Dashiell (North Carolina).

3486. Casper, B. The normal sensory control of the perfected double-alternation spatial-maze habit in the albino rat. *J. Genet. Psychol.*, 1933, 43, 239-292.—After having learned a 9-unit multiple-T alley maze, different groups of animals were subjected to operative elimination of vision, olfaction, and audition, either (1) of one sense at a time, each after a course of relearning the same maze, or (2) of vision and olfaction simultaneously and of audition after a relearning, or (3) of all three. Comparisons of the scores of the various relearnings show that most animals utilize both vision and olfaction, running well with loss of either but not with loss of both; and most do not depend upon audition. Another group of rats was retrained without sense elimination on a maze identical in pattern with the preceding but with rotations and interchanges of units between trials. The group showed disturbance of maze performance comparable with that found in the group subjected to elimination of all three exteroceptive functions mentioned above. Such results suggest the conclusions: that the sensory control of the maze habit, at least after it has been mastered, is multiple; that absence of any effect after elimination of one sense only is not adequate proof that it would not have been utilized if available; that this multiple sensory control of the habit is compatible with a conditioned response explanation of its development.—J. F. Dashiell (North Carolina).

3487. Cheesman, E. Insect behavior. London: Allan & Co., 1932. Pp. 189.—This book is based on the thesis that insects live and move in a subcon-

scious world of their own, comparable to the postulated human subconscious. It is further argued that there is progressive development of insects' mental faculties from the simplest to the highest. The highest mental faculties of the insects border on the conscious state. Ability to profit from an unsuccessful act, that is, to make a successful environmental adjustment, is accepted as the criterion of consciousness. Such modification by experience is inexplicable by the instinct theory alone. The occurrence of this phenomenon is illustrated by examples.—S. H. Newman (Clark).

3488. Clark, G. A., & Wall, T. F. Unconsciousness produced by electric currents. *Quar. J. Exper. Physiol.*, 1934, 24, 85-94.—Cats and rabbits may be rendered unconscious by very brief application of an electric current to the head region. No disability follows and the animal does not show any memory of the occurrence. The cause of unconsciousness in the cases described is not cerebral anemia.—L. Carmichael (Brown).

3489. Clark, L. B. Modification of circus movements in insects. *J. Exper. Zool.*, 1933, 66, 311-333.—*Dineutes*, a water beetle, when blinded in one eye performs circus movements if the source of light is large and the reflection from the background fairly strong, regardless of the direction of the illumination. Differences in the reaction are reported in relation to changes in size of the source of light, the position of the source of light, the intensity of the source of light, and the reflection from the background. It is held that the results secured substantiate a modification of Mast's theory of "response to localized stimulation" rather than Loeb's tropism theory.—L. Carmichael (Brown).

3490. Djelineo, S. Prilagodjavanje termogeneze na toplotnu sredinu, prilog izucavanju energetike homeoterama. (Adaptation of thermogenesis to environmental temperature in homeotherms.) Belgrad: 1933. Pp. 126. Dinar 20.—The influence of the temperature of the environment upon the metabolism of rats was investigated. The metabolic rate was determined on the basis of oxygen consumption and the thermic environment was provided by special thermostatic apparatus. The oscillations of B.M.R. (basal metabolic rate) as well as the oscillation of the maximal metabolism during adaptation to various degrees of temperature were determined. The period of adaptation extended over days in some cases, and even over weeks in others. The B.M.R. was higher the lower the temperature of adaptation. This was shown to be the case in rats of the same type which were brought up in different temperatures ever since birth; at 0° and at 31° the ratio of B.M.R.'s was 2:1. Also the change in the thermic environment of an adult animal changes the B.M.R. in a similar way. Thus a rat which was adapted to 5°-10° showed a B.M.R. of 859 Cal. (pro 1 cm in 24 hours); after 5 weeks under 16°-20° the B.M.R. fell to 676 Cal., after 1 month under 30°-32° to 517 Cal. The transition from higher to lower adaptational temperature increases the B.M.R.; but the adaptation has

more influence upon maximal metabolism. For a rat which was adapted to 30°-32° the maximal metabolism was found to be 746 Cal.; for another rat which was adapted for 16°-20° it was 1817 Cal.; for a third rat which was adapted for 0°-2° it was over 3100 Cal. The results are presented in many tables and curves.—R. Bujas (Zagreb).

3491. Dworkin, S., Seymour, S. L., & Sutherland, G. F. A conditioned reflex method of testing hearing in cats. *Quar. J. Exper. Physiol.*, 1934, 24, 23-30.—By the use of a new conditioned reflex technique involving opening a box in order to secure food cats were trained to respond to sound. With the procedure employed it proved possible to explore the hearing range in one month. Tentative audiograms for two cats are presented showing the apparent ability of the cat to hear notes of at least 40,000 cycles per second.—L. Carmichael (Brown).

3492. Foley, J. P. Conditioning in the decorticated rhesus monkey. *Psychol. Bull.*, 1933, 30, 724.—Abstract.—J. F. Dashiell (North Carolina).

3493. Girden, E., & Culler, E. Auditory effects of X-rays in dogs. *Psychol. Bull.*, 1933, 30, 705.—Abstract.—J. F. Dashiell (North Carolina).

3494. Gray, J. Studies in animal locomotion. I. The movement of fish with special reference to the eel. *J. Exper. Biol.*, 1933, 10, 88-104.—The movements of the body of the eel and of other fish vary in speed of propagation, amplitude, and frequency. Propagation is not the simple result of the nervous impulse. In the eel the movements of each part of the body are shown to be such as to generate a forward thrust which drives the fish forward against the resistance of the water. The magnitude of the thrust depends on (1) the angle of the surface of the fish and its path of motion, (2) the angle of the surface of the fish and the axis of forward movement of the whole fish, and (3) the velocity of transverse movement of the body.—L. Carmichael (Brown).

3495. Harlow, H. F. Effect of cortical lesions induced by radium emanations upon the adaptive behavior of the rhesus monkey. *Psychol. Bull.*, 1933, 30, 737-738.—Abstract.—J. F. Dashiell (North Carolina).

3496. Hartman, C. G., & Tinklepaugh, O. I. Weitere Beobachtungen über die Geburt beim Affen *Macacus rhesus*. (Further observations on the birth of *Macacus rhesus* monkeys.) *Arch. f. Gynäkol.*, 1932, 149, 21-37.—The authors give descriptive accounts of several animals during parturition, including normal births and deviations from the normal. Among 36 impregnated animals there were 11 miscarriages, four of them after a pregnancy of from 151-170 days, and seven under 114 days. Observations on 14 animals are summarized as to: individual differences in behavior, comparison of primiparae with multiparae, indications of approaching labor, thirst, vomiting, duration of a single birth period, position during labor, position of the infant, discharge of blood and mucus, manual examination of the vagina, licking of blood and fluid, manual assistance

in the birth, expressions of pain during labor, grasp reflex of the young, licking the young, eating the placenta, severing the umbilical cord, time of day of birth, and beginning of nursing. The duration of labor varied; the shortest was 12 minutes, the longest over 34 hours. In general, the infant is born after one hour of severe labor, but a two-hour labor is not unusual. Occipital presentation was most frequent, but other presentations also occurred. As soon as the head is born the mother seizes it with both hands, pulling it forward. Eating of the placenta usually follows birth, but there are exceptions to this.—E. F. Kinder (New York City).

3497. Hecht, S., & Wald, G. The visual acuity and intensity discrimination of *Drosophila*. *J. Gen. Physiol.*, 1934, 17, 517-547.—Visual acuity and intensity discrimination as measured by the response of the fruit-fly to moving patterns are functions which run parallel courses in their relationships with intensity. The maximum visual acuity is 1/1000 of the maximum acuity of the human eye, while the maximum intensity discrimination is about 1/250 of that of man. Visual acuity varies in a sigmoid manner with the logarithm of the intensity. The acuity-log I relation is accounted for in terms of the number of elements functional in the retinal mosaic at different intensities. The idea that intensity discrimination can be determined by the differential form of the distribution of functional elements is shown to be untenable. Thus, intensity discrimination also may have to be considered as a function of number of elements activated at a given intensity.—C. H. Graham (Clark).

3498. Heron, W. T. Basal metabolism and maze learning in the rat. *Psychol. Bull.*, 1933, 30, 723.—Abstract.—J. F. Dashiell (North Carolina).

3499. Holst, E. v. Zwei Versuche zum Hirnproblem der Arthropoden. (Two experiments on the brain problem of arthropods.) *Pflüg. Arch. f. d. ges. Physiol.*, 1934, 234, 114-123.—Two experiments with unilaterally decorticated arthropods are carried out: (1) The "forward-and-backward" experiment (on the caterpillar *Hepialis* and the centipede *Cryptops*). The animals run forward in circles in the direction of the unextirpated side, backward in the opposite direction; tonic and motor asymmetry of the body reverse to their opposites in the case of backward running. The experiment is taken as proof that a one-sided extirpation of the brain effects a rotary tendency of the head, while asymmetry of the body in posture and motion is only a consequence of that tendency. (2) The "shortening" experiment (on the centipedes *Lithobius* and *Cryptops*). Progressive shortening of the spinal marrow (*Bauchmark*) from the rear results in increasingly smaller circles caused by an increasing tonic and motor asymmetry between right and left sides. From these experiments the following two principles are derived: (1) there exists an inverse functional relation between the quantitative operation of a center and the magnitude of the rest of the central area, into which a commencing excitation spreads from it; (2) if conditions of activity

of a center are constant the level of excitation depends upon the mass of all remaining central elements to which its influence extends. These principles are taken tentatively as new evidence in favor of the plasticity theory of the nervous system. Whatever appears to be the effect of a "center" is, in reality, determined by the total central area.—*W. Reits* (Chicago).

3500. Huber, E. A phylogenetic aspect of the motor cortex of mammals. *Quar. Rev. Biol.*, 1934, 9, 55-91.—This manuscript of the late Dr. Huber is edited and published by W. L. Strauss, Jr. After discussing the difficulties of cortical stimulation the ontogenetic development of the motor cortex is described. The rest of the paper is devoted to a discussion of the motor cortex of monotremes, marsupials, and placentals. Of the latter, the following orders are treated: insectivores, rodents, bats, ungulates, carnivores and primates. The primates are described in detail, including the Prosimiae, the Simiae and the Catarrhinae. The article concludes with a discussion of the motor cortex of man. Twenty figures and five pages of references illustrate and document the article.—*O. W. Richards* (Yale).

3501. Hut, L. J. Partielle Exstirpationen des motorischen Rindenfeldes bei der Ratte. (Partial extirpation of the motor cortical fields in the rat.) *Arch. néerl. de physiol.*, 1933, 18, 251-264.—By faradic stimulation the motor cortex of rats was located. It was confined to three areas on the dorsum of the hemispheres, the most anterior controlling the head, the middle the shoulders and fore limbs, and the posterior the back, hind limbs, and tail. Two weeks after the first stimulation of these areas, the cortex was again laid bare and stimulated; the motor fields were in the same locations as before, but the points from which particular movements were elicited varied as they did in the series of original experiments. Immediately after the second stimulation small portions of the motor cortex were removed from one or both of the hemispheres. Approximately one month later the hemispheres were laid bare for the third time and were subjected to stimulation. In 6 cases the entire cortex of the hemisphere having a lesion was not responsive to stimulation; in 5 cases it was partly responsive in the uninjured areas. The unoperated hemispheres were typically responsive in one or more areas. All of the operated animals showed motor disturbances, particularly in the posterior extremities; some had equilibratory disabilities. The individual differences in kind and amount of disturbance were prominent, but these could not be explained by the locus or extent of the lesion. From the experiments the author concludes that a limited destruction of cortical tissue causes a widespread physical disturbance of function.—*C. P. Stone* (Stanford).

3502. Illenden, J., Patterson, T. L., Rubright, L. W., & Scott, R. J. The physiology of the gastric hunger contractions in the Javanese monkey. *Quar. J. Exper. Physiol.*, 1934, 24, 55-68.—The empty stomachs of the monkey and man behave in a similar

manner. Small amounts of food do not inhibit movement, but large amounts do. The sight of food may lead to inhibition of the motor activity and tonus of the stomach. Stimuli presented to other sensory surfaces also lead to inhibition.—*L. Carmichael* (Brown).

3503. Jackson, T. A. The use of tools in problem solving by the chimpanzee. *Psychol. Bull.*, 1933, 30, 737.—Abstract.—*J. F. Dashiell* (North Carolina).

3504. Kennard, M. A., & Fulton, J. F. The localizing significance of spasticity, reflex grasping, and the signs of Babinski and Rossolimo. *Brain*, 1933, 56, 213-225.—"This study is based largely upon the chimpanzee and in particular upon four tame specimens in which various cortical lesions were made." Diagrams are given.—*V. M. Jones* (Boston Psychopathic Hospital).

3505. Lutz, F. E. The "buckwheat problem" and the behavior of the honey-bee. *Amer. Mus. Novitates*, 1934, No. 688, 1-10.—An attempted analysis of the bee's periodic responses to food produced only during certain temporal intervals. A population of bees was required to make differential responses to two different colors at two different times, each color constituting the correct stimulus at a predetermined temporal period during the day. It was found that the bees responded to the correct color at the right time. When the conditions were changed, such as presenting food after "normal" time, or allowing one color to represent food during the entire day, the bees immediately took advantage of the situation. The author concludes that the behavior of the bee is distinctly practical and energy-conserving. The bee solves the "buckwheat problem" in a simple and practical manner.—*S. H. Newman* (Clark).

3506. Nissen, H. W. Concurrent antagonistic visual discrimination habits in the chimpanzee. *Psychol. Bull.*, 1933, 30, 704.—Abstract.—*J. F. Dashiell* (North Carolina).

3507. Park, T. Observations on the general biology of the flour beetle, *Tribolium confusum*. *Quar. Rev. Biol.*, 1934, 9, 36-54.—The flour beetle may be reared readily in cereals and is adapted to experimental use in the study of population growth and animal behavior. The natural history and the technique of raising the beetles are described in detail. The animals are negatively phototropic and geotropic. Their movements through the culture are random. The growth of populations of the beetles is complicated by the fact that they eat their own eggs and larvae, so that the number at any given time depends on the size of the environment and the rate of egg laying and the numbers of larvae, pupae and adults. The life history is illustrated and a list of references to experiments with these beetles is given.—*O. W. Richards* (Yale).

3508. Patterson, T. L., & Rubright, L. W. The influence of tonal conditions on the muscular response of the monkey's stomach. *Quar. J. Exper. Physiol.*, 1934, 24, 3-21.—The gastric response is dependent upon the pre-existing state of tonus of the gastro-

neuro-muscular mechanism. Tonus and movement are both involved and may vary independently of each other. Compression of the eyeball leads in some animals to the oculogastric reflex, and it is possible that all sensory nerves in the body exert an influence on the stomach via long reflex mechanisms of the vagus and splanchnic efferents.—*L. Carmichael* (Brown).

3509. Prosser, C. L. Action potentials in the nervous system of the crayfish. *J. Cell. & Comp. Physiol.*, 1934, 4, 363-377.—The action potentials of the central nervous system of *Cambarus virilis* were led off by coaxial electrodes, amplified and recorded on a cathode-ray oscilloscope. The responses of the pharyngeal commissures to illumination of the eye consist of an initial effect following a latent period of about 30 μ , a brief maintained response of few impulses per second, and a final "off" effect. This involves fibers which were not spontaneously active. The response decreases with illumination and adaptation is complete in 3 minutes with 200 meter-candles of illumination. The response is slightly greater in the homolateral than in the contralateral commissure. A similar response was obtained for the optic nerve. The effect of illuminating the caudal photoreceptor was studied, and this organ was thought to be a simple and possibly primitive photoreceptor.—*O. W. Richards* (Yale).

3510. Richter, C. P., & Hartman, C. G. The effect of injection of amniotin on the spontaneous activity of gonadectomized rats. *Amer. J. Physiol.*, 1934, 108, 136-143.—"Oestrin injected into seven spayed female rats maintained not only a normal state of the reproductive tract but also a normal level of spontaneous activity. Untreated spayed animals, on the other hand, showed atrophic changes in the tract and became very inactive. Eight castrated males treated with the hormone experienced a similar, though less marked, increase in activity. This effect occurred despite the involution of the male secondary sex glands. The same result was obtained in seven animals gonadectomized at early ages and injected first at 35 days of age. Inasmuch as oestrin produced a marked increase in the activity of gonadectomized males without preventing the castrate atrophy of the sex apparatus, it is concluded that the hormone contains a factor specific for activity and independent at least in large part of the sex factor."—*C. Landis* (N. Y. Psychiatric Institute).

3511. Riess, B. F. Problem solving by albino rats and guinea pigs. *Psychol. Bull.*, 1933, 30, 735-736.—Abstract.—*J. F. Dashiell* (North Carolina).

3512. Schick, W. Reflex changes after injury to the pyramidal tract in the macaque, gibbon and chimpanzee. *Arch. Neur. & Psychiat.*, 1933, 30, 501-513.—*V. M. Jones* (Boston Psychopathic Hospital).

3513. Spence, K. W. Visual acuity and its relation to brightness in chimpanzee and man. *Psychol. Bull.*, 1933, 30, 704-705.—Abstract.—*J. F. Dashiell* (North Carolina).

3514. Ten Cate, J. Die Reflexfähigkeit der Hinterextremität der Hunde nach der Isolierung einer Lumbosakralmarkhälfte. (The reflex activity of the lower extremities of the dog after isolation of a lumbo-sacral half of the spinal cord.) *Arch. néerl. de physiol.*, 1932, 17, 525-536.—Experiments performed upon young dogs demonstrated that an isolated piece of the lumbo-sacral cord, consisting of lumbar segments 4-7 and the first sacral segment, was capable of supporting reflex activity in the posterior extremities normally supplied by these neural segments.—*C. P. Stone* (Stanford).

3515. Ten Cate, J. Über Steh- und Laufvermögen von Hunden mit doppelt durchtrenntem Rückenmark. (On the standing and running abilities of dogs with double transections of the spinal cord.) *Arch. néerl. de physiol.*, 1932, 17, 556-559.—The discussion pertains to dogs in which the lumbo-sacral portion of the spinal cord had been isolated from the remaining portion of the cord by double transection. The dogs were able to stand with the posterior extremities held on a more or less level position with respect to the rest of the body; in this, the hind limbs play no important role, as the posterior portion of the body is held up by contracture of muscles located in the front portions of the dog. The regulation of progression movements of the hind legs is ascribed to incoming impulses arising in the soles of the hind feet.—*C. P. Stone* (Stanford).

3516. Ten Cate, J. Zur Innervation der Fortbewegung der Haifische. (Innervation of locomotion in the shark.) *Arch. néerl. de physiol.*, 1934, 18, 497-502.—Working with sharks in which the spinal cord had been transected, the author demonstrated conclusively that there is direct transmission of excitation from body segments that are proximal to segments that are distal to the transected cord. This is made possible by sensory nerves arising just back of the transection which are distributed to body segments that lie anterior to the transection. As the last segments of the anterior portion of the animal go into action, these sensory nerves transmit impulses to the segments of the cord behind the transection and thereby set up contractions in the distal segments of the body. The quicker and better coordinations and also the sinuous movements in fishes with simple transection of the spinal cord are due to this kind of nervous transfer of excitation. The same conclusion appears to hold for normal fishes.—*C. P. Stone* (Stanford).

3517. Ten Cate, J., & Ten Cate-Kazejewa, B. La coordination des mouvements locomoteurs après la section transversale de la moelle épinière chez les requins. (Coordination of locomotor movements following transverse sectioning of the spinal cord in sharks.) *Arch. néerl. de physiol.*, 1933, 18, 15-23.—The authors made simple and double transections, two or more segments apart, in the spinal cords of sharks. Observations of the movements of the operated animals led to the conclusion that direct excitation of sensory nerves, arising above the lesion and entering the cord below it (and vice versa) plays an important

role in all coordinated and rhythmic activities of the musculature above and below the transections. This kind of neural control is not the only one involved, however. There is, in addition, that which arises from tensions exerted upon each other by the anterior and the posterior parts of the body.—C. P. Stone (Stanford).

3518. Ten Cate, J., & Van Herk, A. W. H. *Beobachtungen an Kaninchen nach Exstirpationen im Neopallium.* (Observations on rabbits following extirpation of the neopallium.) *Arch. néerl. de physiol.*, 1934, 18, 337-386.—The following conclusions are drawn from observations on two rabbits that survived the destruction of great amounts of the neopallium for a period of six months. Despite complete removal of the two areas striatae the visual functions, which in the beginning appeared to be greatly impaired, gradually returned and, comparatively speaking, became very complete. The return of optical sensitivity must be ascribed to a subcortical visual center. Conditioned reflexes founded upon optical stimuli could be built up in these animals; hence it may be concluded that subcortical centers are capable of mediating conditioned reflexes in rabbits. The auditory sense quickly returned after the extirpations and conditioned reactions to acoustic stimuli could be set up readily. Since a part of the auditory cortex remained intact, however, no conclusions as to a subcortical acoustic center could be drawn. Injuries that involved the archipallium as well as the neopallium led to great impairment of the taste sense, whereas injuries to the latter alone caused no impairment of this sense. From this fact the author infers a dependent relationship between taste and the old brain. Extirpation of the frontal portions of the neopallium led to increased irritability of the taste sense; this finding suggests that the neopallium exercises a depressing influence on this sense modality. Although both rabbits appeared to be completely normal animals, certain deviations in general behavior could be noted. They did not avoid water, did not dig in the ground, and did not seek protection from rain and annoyances.—C. P. Stone (Stanford).

3519. Uiberall, H. *Das Problem des Winterschlafes.* (The problem of hibernation.) *Pflüg. Arch. f. d. ges. Physiol.*, 1934, 234, 78-97.—Contrary to Adler's theory that hibernation takes place on account of lack of the thyroid hormone as a consequence of a seasonally occurring atrophy of the thyroid, Uiberall concludes from his experimental feeding of thyroid to hedgehogs that hibernation must be considered a process regulated by the central nervous system; as such, it is a positive performance belonging to a group of phenomena usually designated as sleep. Further evidence of this view is found in the continuous operation of a number of regulative and reactive processes and reflexes during the period of incubation. A comparative analysis of the common and winter sleep finds no fundamental differences between the two conditions. Both are complex processes made up of changes in animal and vegetative functions.

The stronger accentuation of the animal functions during common sleep and of the vegetative functions during winter sleep are the gross external differences between the two. Hibernating animals possess a somewhat imperfect, yet sufficiently strong mechanism of temperature regulation, in view of which the interpretation of winter sleep as a simple failure of the temperature regulation must be rejected. The great resistance of the central nervous system toward low temperatures enables hibernating animals to survive low temperatures a longer time without harm. The decrease of the body temperature in hibernation has also an effect (analogous to the influence of cold upon nerve substance) upon the central nervous system of the animals. This is an inhibiting effect, which gives hibernation its particular characteristics.—W. Reitz (Chicago).

3520. Van Dijk, J. A. *The influence of the sympathetic innervation upon the tonic manifestations of the fore legs of decerebrated cats.* *Arch. néerl. de physiol.*, 1933, 18, 105-138.—A series of experiments having to do with a certain degree of plasticity remaining in the fore legs of decerebrated cats after total deafferentation. This plasticity is ascribed to sympathetic innervation.—C. P. Stone (Stanford).

3521. Van Dijk, J. A. *The influence of the blood supply upon muscular activity in birds.* *Arch. néerl. de physiol.*, 1934, 18, 387-406.—The author carried out a series of experiments on thalamic pigeons in which the axillar artery, which feeds the m. triceps brachii, was closed and subsequently released during prolonged stimulation of this muscle. He concluded "that the changes occurring in the muscular activity under the experimental conditions depend on variations in the provision of the functional muscle units with oxygen, by which their excitability is governed, and that the results obtained suggest that under a prolonged and uniform stimulation, after the period of the Treppe is over, the capillaries of a muscle remain in a state of expansion, without great fluctuations."—C. P. Stone (Stanford).

3522. Van Rijnberk, G., & Ten Cate, J. *Über die Funktionen eines von allen heterometameren Nervenverbindungen isolierten Körpersegmentes bei Hunden.* (Concerning the functions of body segments in dogs that are isolated from all heterometameric nerve connections.) *Arch. néerl. de physiol.*, 1934, 18, 291-336.—A completely isolated segment of the spinal cord in a dog can maintain itself and the trophic and reflex functions of the entire dermatome and myotome which it innervates. Within the segmental reflex field some functional subdivision arises, as illustrated by the fact that the m. obliquus externus is caused to contract by stimuli applied chiefly in the ventral section of the field, whereas the long back muscles are aroused by stimuli applied on the dorsum. Only the m. rectus could be made to contract by stimuli applied everywhere in the receiving field. The functions of the isolated segment of the spinal cord cannot be detected immediately after the operation, and rehabilitation of functions takes place very gradually. The first evidences of rehabilitation are reflex contrac-

tions of more or less isolated portions of the myatome; later the borders of the dermatome may be sketched by these reflexly aroused muscle contractions; finally, the lateral breaks in the territory of the dermatome disappear and the dermatome takes the form of a girdle, extending from the dorsal midline to the ventral midline.—C. P. Stone (Stanford).

3523. Welsh, J. H. The caudal photoreceptor and responses of the crayfish to light. *J. Cell. & Comp. Physiol.*, 1934, 4, 379-388.—The leg movements of *Cambarus virilis* and *C. clarkii* which occur on illumination of the eyes and/or the caudal photoreceptor were recorded graphically and the frequency of the movement was related to the nature of the photic stimulation. Animals without eyes avoided the light by random movements, but after removal of both eyes and caudal photoreceptor there was no evident avoidance of light.—O. W. Richards (Yale).

3524. Welty, J. C. Experiments in group behavior of fishes. *Physiol. Zool.*, 1934, 7, 85-128.—Goldfish learn a simple maze more rapidly when grouped than when isolated. The group seems to stimulate learning through visually integrated group cohesion, through an inter-"reassurance" that tends to remove environmental inhibitions, and through an interaction of individuals which stimulates exploratory behavior. Groups of goldfish retain conditioned responses better than do isolated fish. Adding a trained fish to the group speeds learning of the maze and the fish learn more rapidly after seeing a fish do the run. Under certain conditions mud-minnows in groups show an antagonistic behavior which retards learning. Goldfish, paradise fish, zebra fish, and shiners eat more food per fish in groups than when isolated.—O. W. Richards (Yale).

3525. Wolfe, J. B. The utilization of symbolic rewards by the chimpanzee. *Psychol. Bull.*, 1933, 30, 737.—Abstract.—J. F. Dashiell (North Carolina).

3526. Wolsky, A., & Huxley, J. S. The reactions of normal and mutant types of *Gammarus chevreuxi* to light. *J. Exper. Biol.*, 1932, 9, 427-440.—*Gammarus chevreuxi*, an amphipod, was studied in normal wild specimens and showed negative phototaxis. This is held to be tropotaxis, because circus movements appear when one eye is varnished. Negative is replaced by moderate positive phototaxis by addition of acetic acid. Albino mutants, which possess neither retinulae nor optic nerves, show no phototaxis.—L. Carmichael (Brown).

3527. Woolsey, C. N. Postural relations of the frontal and motor cortex of the dog. *Brain*, 1933, 56, 353-370.—"This paper presents the physiological observations made on thirty-two dogs, from which various portions of the frontal and motor areas of the cortex were removed. The evidence obtained supports the thesis that postural phenomena are associated with destruction of the excitable area of the cortex." Photographs and diagram are given.—V. M. Jones (Boston Psychopathic Hospital).

3528. Yerkes, R. M. Principles of behavioral adaptation in the chimpanzee as revealed by the

method of multiple choice. *Psychol. Bull.*, 1933, 30, 736.—Abstract.—J. F. Dashiell (North Carolina).
[See also abstracts 3381, 3450, 3452, 3459.]

EVOLUTION AND HEREDITY

3529. Bracken, H. v. Psychologische Untersuchungen am Zwillingen. (Psychological experiments on twins.) *Indus. Psychotechn.*, 1933, 10, 351-352.—15 pairs of monozygotic and 11 pairs of dizygotic twins were carefully observed. The behavior and interests of monozygotic twins more closely resembled each other than did those of dizygotic twins. Therefore, it was concluded that the influence of each of the monozygotic pair on the other was different from that of the individuals of a dizygotic pair. Life's associations bring about more likenesses in monozygotic and more differences in dizygotic twins.—H. J. P. Schubert (Buffalo).

3530. Brugger, C. Psychiatrisch-genealogische Untersuchungen an einer Allgäuer Landbevölkerung im Gebiet eines psychiatrischen Zensus. (Psychiatric-genealogical studies of an Allgäu rural population in the field of a psychiatric census.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 145, 516-540.—From the five communes of the Bavarian Allgäu in which there was a complete psychiatric census of the entire population, 100 heads of houses and their offspring were selected for study. The following corrected frequencies of mental disorders were determined: (1) for the siblings: schizophrenia, 0.98%; manic-depressive psychoses (?), 0.40%; epilepsy, 0.26%; imbecility and idiocy, 1.32%; all degrees of feeble-mindedness, 2.12%; alcoholism, 0.53%; psychopathic personality, 1.06%; other abnormalities, 1.06%; and (2) for the parents: schizophrenia, 0.55%; manic-depressive psychoses (?), 0.55%; debility, 0.55%; alcoholism, 1.10%; psychopathic personality, 1.10%. A bibliography is given.—C. W. Fox (Rochester).

3531. Finch, F. H. A study of the relation of age interval to degree of resemblance of siblings in intelligence. *J. Genet. Psychol.*, 1933, 43, 389-404.—Intelligence test records for 1401 siblings, furnishing 1023 pairings, showed a coefficient of resemblance of .49. When the IQ differences within the respective pairs were compared with their age differences (which ranged up to 11 years) coefficients approximating zero were obtained; and a negative answer was returned to the query whether degree of resemblance in measured intelligence between children of the same parents is a function of the interval of time separating their births.—J. F. Dashiell (North Carolina).

3532. Finch, F. H. The relation of age interval to the degree of resemblance of siblings in intelligence. *Psychol. Bull.*, 1933, 30, 707-708.—Abstract.—J. F. Dashiell (North Carolina).

3533. Frets, G. P. Erblichkeitsuntersuchung in der Psychiatrie. Familie 134. (Inheritance study in psychiatry. Family 134.) *Genetica*, 1933, 15, 253-298.—(Courtesy *Bibliographia Eugenica*).

3534. Gengnagel, E. Beitrag zum Problem der Erbprognosebestimmung. Ueber die Erkrankungs-

aussichten der Kinder von Schizophrenen. (Contribution to the problem of prognosis of heredity. The disease-prospects of the children of schizophrenics.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 145, 52-61.—This article is based upon the study of 44 schizophrenics with adult offspring. Among the 197 descendants were 8 cases of schizophrenia, 10 somehow suggesting schizophrenia, 11 manifesting abnormalities in other ways, and 3 "unclear" psychoses. Determined by Weinberg's short method, the disease-probability in these offspring is 8.33%. Bibliography.—C. W. Fox (Rochester).

3535. Gregory, W. K. *Man's place among the anthropoids*. New York: Oxford Univ. Press, 1934. Pp. 125. \$2.50.—Three lectures on the evolution of man from the lower vertebrates.—A. B. Hunter (Clark).

3536. Haldane, J. B. S. *The causes of evolution*. New York: Macmillan, 1932. Pp. 235. \$2.50.—W. S. Hunter (Clark).

3537. Halverson, H. M. *A psychological study of an unusual case of polydactylism*. *Psychol. Bull.*, 1933, 30, 728.—Abstract.—J. F. Dashiell (North Carolina).

3538. Hogben, L. *Nature and nurture*. New York: Norton, 1933. Pp. 144. \$2.75.—Discounting extravagant claims for the possible contribution of human genetics to social evolution, the author nevertheless believes that genetic principles have important bearings upon medicine. Statements regarding genetic differences have no scientific meaning without specification of the environment in which they appear. Some genetic differences are recognizable in almost any environment in which the fertilized egg will develop (e.g. amaurotic idiocy); some are manifest only within a fairly restricted range of environment (e.g. Mongolism). A single gene substitution may vary in its effects according to environment, and according to the presence of other genes. Drawing upon the contributions of Pearson, Yule, Fisher, Haldane, and others, as well as upon original work, Hogben presents formulae for predicting the incidence of the various genotypic and phenotypic possibilities, and for correlation coefficients between relatives upon various hypotheses. Separate consideration is given to the outcomes of random and assortative mating, consanguineous parentage, varying degrees of dominance, sex linkage, proportional incidence of genes, and number of genes. Illustrations are provided, chiefly from the medical field. The book contains a critical discussion of attempts to estimate the proportional contributions of nature and nurture to variance (Fisher through differences between sibling and parent-offspring r 's; Holzinger through differences between fraternal-twin and identical-twin r 's). "The technique of correlation can be used to draw attention to the existence of genetic differences or of differences due to environment. . . . The belief that a comparison between observed correlations of relatives and correlations based upon purely genetic assumptions provides us with a measure of the influence of nurture is not

justified, because of the close relationship between the distribution of gene differences and differences due to environment in populations of viviparous animals which live in families."—B. S. Burks (California).

3539. Kroh, O. *Typenlehre und Vererbungs-forschung*. (Typology and experiments in heredity.) *Indus. Psychotechn.*, 1933, 10, 377-378.—The usefulness of the methods of typology for the study of heredity is discussed.—H. J. P. Schubert (Buffalo).

3540. Laughlin, H. H. *Racing capacity in the thoroughbred horse. Part II. The inheritance of racing capacity*. *Scient. Mo.*, 1934, 38, 310-321.—For predicting racing capacity in the offspring of a thoroughbred pair a formula is furnished based upon the racing capacities of near kin. (See VIII: 3081.)—J. F. Dashiell (North Carolina).

3541. Newman, H. H. *Evolution yesterday and today*. Baltimore: Williams & Wilkins, 1932. Pp. 171. \$1.50.—W. S. Hunter (Clark).

3542. Newman, H. H. *Mental and physical traits of identical twins reared apart. Case VIII. Twins "M" and "R."* *J. Hered.*, 1934, 25, 55-60.—A pair of twin girls of age 16, diagnosed as monozygotic, were separated at the age of 3 months and adopted by two families of relatives. M's cultural and social environment was much more stimulating than that of R. Medical histories are fairly similar. The twins have a mirror-imaged type of strabismus. On the Stanford-Binet M's IQ is 92; R's IQ is 77. Other mental tests also show significant differences in favor of M; the Stanford Achievement Test shows a slighter difference. Results upon the Downey Will-Temperament Test, the Kent-Rosanoff, the Pressey X-O, and the Woodworth-Mathews, as well as laboratory observations, lead the author to conclude that the two girls are moderately different in their temperamental-emotional traits.—B. S. Burks (California).

3543. Saller, K. *Untersuchungen in Förderklassen (Sprachklassen) und Hilfsschulen der Stadt Hannover. Beitrag I zur Frage der Beziehungen zwischen Intelligenz, sozialer Schichtung und unterschiedlicher Volksvermehrung*. (Investigations in the advanced classes [language classes] and in the opportunity schools of the city of Hannover. Contribution I to the relation between intelligence, social stratum, and differential rate of reproduction.) *Zsch. f. Kinderforsch.*, 1933, 41, 181-211.—There is a differential rate of reproduction in the social strata. In general the same elements which have the highest reproductive rate also have greatest incidence of retardation, although the latter is present at all social levels.—K. C. Pratt (Michigan Central State Teachers College).

3544. Saller, K. *Untersuchungen in Landgebieten Ostfrieslands und des bayrischen Waldes. Beitrag II zur Frage der Beziehungen zwischen Intelligenz, sozialer Schichtung und unterschiedlicher Volksvermehrung*. (Investigations in the region of East Friesland and the Bavarian Forest. Contribution II to the question of the relation between intelligence,

social stratum, and differential rate of reproduction.) *Zsch. f. Kinderforsch.*, 1933, 41, 369-410.—There is an occupational hierarchy which manifests greater differences between the different social strata than between different racial groups. In all social strata the smaller the reproductive rate the higher is the intelligence. The author believes that the differences between city and country children in intelligence cannot be ascribed completely to selective processes. He holds that environmental factors tend to bring about the variation.—K. C. Pratt (Michigan Central State Teachers College).

3545. Snyder, L. H. Studies in human inheritance. X. A table to determine the proportion of recessives to be expected in various matings involving a unit character. *Genetics*, 1934, 19, 1-17.—(Courtesy *Bibliographia Eugenica*).

3546. Stumpff, F. Erbenanlage und Verbrechen. I. Teil. Die Kriminalität bei den Geschwistern und bei den Vettern und Basen der Ausgangsfälle. (Hereditary predisposition and crime. Part 1: Criminality among the sisters, brothers and cousins of the cases taken as starting points.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 145, 283-326.—More criminals are found among the relatives of repeating or habitual criminals than among the relatives of those who have committed but one crime. This is true not only of siblings, brought up under the same or similar environmental influences, but also of cousins, reared in quite different environments. In particular, relatively more habitual criminals are found among the cousins of habitual criminals than among the cousins of those who have broken the law but once. Found among the criminal relatives of habitual criminals are certain particular and serious categories of delinquency. The individual cases are discussed in detail and a bibliography is appended.—C. W. Fox (Rochester).

3547. Vega, G. Herencia de los caracteres psicológicos. (The inheritance of mental characters.) *Arch. de neurobiol.*, 1934, 8, 405-418.—A study, with a strong genetic emphasis, of the families of outstanding men of unusual accomplishment. Seven generations of the genealogical tree of Bach are presented. Unusual musical ability was evident in each generation. Five generations of the family of Mozart; four of Galton's and Darwin's; and four of Goethe's are analyzed and interpreted from the genetic point of view.—R. M. Bellows (Ohio State).

3548. Woodall, C. S. The children of mentally defective and mentally retarded mothers. *J. Psycho-Asthenics*, 1932, 37, 328-354.—Examination of the children of all mothers who have been patients of the Walter E. Fernald State School.—(Courtesy *Bibliographia Eugenica*).

[See also abstracts 3649, 3807, 3809, 3844.]

SPECIAL MENTAL CONDITIONS

3549. Beltran, J. R. La psicoanalisis—sus fundamentos y aplicaciones. (Psychoanalysis—its foundations and applications.) Buenos Aires: Aniceto

Lopez, 1932.—The author reviews first the origin and psychological foundations of psychoanalysis, summarizes Freud's theory, investigates especially dreams from the psychoanalytic point of view, expounds briefly the psychoanalytic technique, including its relation to pedagogy, and finally analyzes the relation between psychoanalysis and law and the psychoanalytic conception of penalty.—R. E. Schwarz (V. A. Facility, Northport, N. Y.)

3550. Bibring-Lehner, G. Über die phallische Phase und Ihre Störungen beim Mädchen. (On the phallic phase and its disturbances in the girl.) *Zsch. f. psychoanal. Päd.*, 1933, 7, 145-152.—Psychoanalytic investigations of the last decade have shown that the psychosexual development of the girl at the phallic stage differs from that of the boy in several essential respects. The distinctive aspects of the phallic stage in the girl are: (1) the displacement of the mother by the father as the child's love-object; (2) the change of the girl's behavior from the active to the passive role; (3) the surrender of the clitoris as the primary erogenous zone. The author considers the various ways and processes by which these changes are effected, and agrees with previous writers that the basic fact around which they revolve is the girl's discovery that she has no penis (*Penis-losigkeit*). Neurotic disturbances may follow incomplete or faulty resolution of the female castration complex. The author, while recognizing the main types described by K. Abraham (*Wünscherfüllungstypus* and *Rachetypus*), finds a third group in which neither the masculine-complex nor penis-envy plays the predominant role. In this type, the girl's reaction to the loss of the penis is a complete abnegation of the sexual role or sexuality as a whole, which is then looked upon as either entirely unsatisfactory or degrading.—D. Wechsler (New York City).

3551. Bond, F. B. The secret of immortality. Boston: Marshall Jones, 1934. Pp. 189. \$2.50.—R. R. Willoughby (Clark).

3552. Bornstein, S. Eine Kinderanalyse. (A child analysis.) *Zsch. f. psychoanal. Päd.*, 1932, 7, 253-281.—This analysis of a three-year-old boy reveals a series of traumatic experiences which seriously disturbed the child's instinctual development from the early age of one and a half. The symptom, a convulsive retention of the feces for from one to five days, followed by defecation with great anxiety, horror, and fear of remaining near the stool, was of an obsessional character and not due to constipation. The analytic process, described with unusual clarity, reveals that the anxiety which produced the symptom and inhibited the normal development of the anal and sadistic instincts characteristic of the pregenital period, sprang from an early genital impulse occurring long before the establishment of genital primacy. Through the complication of the traumatic events and the pregenital drives, feces and penis became equivalent in the child's unconscious fantasy life. Anxiety about possible loss of the latter became attached to the former. A comparatively short analysis of 100 hours resulted in a therapeutic success con-

sisting of the complete removal of the symptom as well as of the accompanying anally determined character traits of over-cleanliness, disgust at dirt, and stinginess. Two years after the close of the treatment, the child was still showing good normal development and excellent capacity for sublimation.—*M. H. Briehl* (New York City).

3553. Brown, W. The psychology of personal influence. *Lancet*, 1933, 225, 1191-1193.—A general discussion of suggestion.—*D. J. Ingle* (Minnesota).

3554. Crawford, N. A. Cats holy and profane. *Psychoanal. Rev.*, 1934, 21, 168-179.—This essay briefly sketches the roles cats have played in the beliefs and superstitions held by men throughout the ages. It points to the reasons for the cat's being taken as a symbol of both good and bad luck in different places and times, and concludes with an exposition of the psychoanalytic significance of ailurophobia, disproving psychiatrically the ancient notion that fear or hatred of cats was based upon a racial memory or a childhood experience in which a cat had figured as a source of danger or fear. Ailurophobia is shown to be, like any other phobia, the result of an emotional conflict. The cat is an erotic symbol and it is indicated that fear of cats or love of cats may well point to the existence of an expressed or repressed homosexuality and that it may also indicate various other character traits.—*L. S. Selling* (Institute for Juvenile Research).

3555. Durup, G. Les phénomènes hypnagogiques et l'invention. (Hypnagogic phenomena and invention.) *Année psychol.*, 1932, 1, 94-105.—Four points of view are offered for exact research on invention: richness of memories and ideas, actual stimulation of thought and imagination, the general faculty of bringing together related ideas, or thinking by analogy, and the choice and use of unforeseen data. The last two points constitute the core of the psychological problem. Certain hypnagogic phenomena seem naturally to aid research. The first indications obtained agree with those of other authors in showing the importance of an extreme flexibility of attention, which must first be relaxed to permit a new comparison, then reach out at once to seize it and utilize it. The author concludes that invention is constructed alternately of tension and relaxation.—*E. F. Kemp* (Clark).

3556. Fritz, M. F. The field of psychodietetics. *Psychol. Bull.*, 1933, 30, 729-730.—Abstract.—*J. F. Dashiell* (North Carolina).

3557. Geert-Jørgensen, E. Om primitiv psychoanalyse ad modum Wernøe. (On primitive psychoanalysis by the method of Wernøe.) *Hospitalstid.*, 1933, 76, 1232-1236.—This is a report of a lecture given before the Neurological Society, Copenhagen, April 1933, in which the writer discusses the new method of investigation instituted by Wernøe in 1930 (*Ugeskr. for Læger*, 1930, Nr. 31) and further discussed by him in an article, *Primitive Psychoanalysis*, in *Hospitalstid.*, 1932, No. 41. Briefly, the method is the eliciting of an arm reflex by faradic stimulation, which should give a "rough mental orientation":

i.e., give indications of the nature of the complexes of the patient. All in all, the writer, as a check on this method, investigated 602 cases, consisting of 380 patients with psychoses and a control group of 222 normal cases. Among the conclusions are: (1) Among mental patients, normal reactions under bimanual faradic stimulation seem to be the rule, as stated also by Wernøe. (2) Deviations from this normal reflex consist mainly in large defense movements, now and then accompanied by screams and other signs of displeasure. (3) These defense movements cannot always be considered as expressions of functional neurosis, but may be explained as instinctive dislike of electric shocks. This later type of reaction, however, is rarely of such dramatic effect and in repeated trials will frequently approximate normal reaction. (4) In the control group, normal reactions were predominant, and among those individuals who showed atypical reactions neither open nor concealed complexes were discovered.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

3558. Hahn-Kende, F. Über Klitorisomanie und Penisneid. (Clitoral masturbation and penis envy.) *Int. Zsch. f. Psychoanal.*, 1933, 19, 416-427.—At the Vienna conference on onanism in 1912, analysts considered masturbation in the male and female child to be similar: the clitoris was considered a penis equivalent. The author cites material from three cases of women whom she has analyzed which disagrees with this formulation and also with the formulations expressed by Freud, Abraham, H. Deutsch and others. Briefly, these formulations are: (1) clitoris masturbation and its psychic components are constantly present and are an unconditionally necessary phase in the development of female sexuality; (2) the clitoris as an erotogenic zone has significance comparable to the earlier oral zone or the later vaginal one; (3) penis envy is present and ubiquitous. In the three cases cited vaginal (or vulval or labial) masturbation was characteristic of childhood. As further contradictions to these formulations the author refers to the work of the ethnologist Bryk on vaginal masturbation in African children, who showed no penis envy, and to the work of the anatomist Braus. Braus states that the female glans clitoridis is not genetically identical with the glans penis of the male (as analysts believe) but with the corpora cavernosa penis. At the same time the large and small labia are homologous with the prepuce and the skin of the glans respectively.—*A. Slutsky* (New York City).

3559. Horney, K. Die Verleugnung der Vagina. (The denial of the vagina.) *Int. Zsch. f. Psychoanal.*, 1933, 19, 373-384.—See VIII: 338.—*A. Slutsky* (New York City).

3560. Huston, P. E., Shakow, D., & Erickson, M. H. An experimental study of hypnotically induced complexes. *Psychol. Bull.*, 1933, 30, 738.—Abstract.—*J. F. Dashiell* (North Carolina).

3561. Jobert, L. Addenda to the psychopathology of everyday life: the cases of two students of music. *Psychoanal. Rev.*, 1934, 21, 156-167.—The purpose

of this article is to turn the teacher's attention from universality of method to a method for each individual student grounded upon the assumption that the greater part of the student's difficulty lies not in the subject of study but in himself. Sense of rhythm and training of memory are explained in much detail, and the points brought out are exemplified psychoanalytically in two long case histories.—*L. S. Selling* (Institute for Juvenile Research).

3562. Jones, E. *Die phallische Phase.* (The phallic phase.) *Int. Zsch. f. Psychoanal.*, 1933, 19, 322-357.—See VIII: 342.—*A. Slutsky* (New York City).

3563. Kessel, L., & Hyman, H. T. The value of psychoanalysis as a therapeutic procedure. *J. Amer. Med. Asso.*, 1933, 101, 1612-1615.—During the past twelve years the authors have referred certain of their patients to accredited psychoanalysts. Of these 33 had submitted to a more or less complete analysis. In 16 cases the results were definitely bad. In 5 cases specific cures were reported. In 12 additional cases the patients were benefited by analysis. The usefulness of this form of therapy is limited by psychiatric status, age, and the small number of properly trained analysts.—*D. J. Ingle* (Minnesota).

3564. Laird, D. A. Some normal odor effects and associations of psychoanalytic significance. *Psychoanal. Rev.*, 1934, 21, 194-200.—"Data from 254 distinguished living persons show that the sense of smell still occupies a prominent place in normal mental dynamics and has not fallen into the state of disuse imagined by many. The relative rarity of olfactory abnormalities should be looked upon as reflecting the evolutionary dictum that 'the oldest neurologically is the most stable.' The common occurrence of psychoanalytic mechanisms reported in the paper show the active role of the sense of smell in human mental life, frequently approaching the border line without passing over the line into the abnormal. Closer study of the patient's odor associations, preference and experiences than is customary in analytic work would both speed up the analysis and give a better abreaction and more satisfactory analysis."—*L. S. Selling* (Institute for Juvenile Research).

3565. Levi-Bianchini, M. Ancora alcuni piccoli aforismi psicoanalitici ed altri. (Certain additional little psychoanalytic aphorisms.) *Arch. gen. neur., psichiat. e psicoanal.*, 1933, 14, 34-40.—*R. Calabresi* (Rome).

3566. Meng, H. *Psychoanalyse und Heilpädagogik.* (Psychoanalysis and therapeutic education.) *Zsch. f. psychoanal. Päd.*, 1933, 7, 176-183.—The author considers the contributions of psychoanalysis toward the creation of a science of therapeutic education. Among the most important of these are, on the one hand, the facts regarding the early psychosexual development of the child and the role played by them in the first years of the child's life, and on the other, the mental mechanisms which account for the various ways in which children may fail to develop emotionally. By virtue of its discoveries, psychoanalysis has made possible the recognition of function-

al disease entities in children (neuroses), previously confounded with mere perverse behavior or cited as examples of educational problems, and furnished a therapy for such cases, namely child analysis. As regards class-room problems, psychoanalysis has called attention to difficulties arising from unconscious conflicts in and between pupil and teacher. Particularly important are the unconscious guilt feelings. Such feelings generally tend to increase rather than diminish instinctual drives which one desires to repress.—*D. Wechsler* (New York City).

3567. Menninger, K. A. Some unconscious psychological factors associated with the common cold. *Psychoanal. Rev.*, 1934, 21, 201-207.—This is an outline of a long case history which is cited to substantiate the author's contention that the common cold is an organic disease which is frequently made to serve some psychological purpose of the patient, and to support Groddeck's hypothesis that the libido in some way pervades the entire body in such a fashion that the body may accept or reject an infection in accordance with some instinctive demand; which hypothesis, although not entirely scientific, at least reconciles the bacteriological theories of resistance and immunity with the psychological theories of self-protection and self-destruction. In the case cited, the patient's cold seems to be a re-enactment of her wish to castrate her brother and acquire a penis.—*L. S. Selling* (Institute for Juvenile Research).

3568. Messerschmidt, R. Responses of boys between the ages of five and sixteen years to Hull's postural suggestion test. *J. Genet. Psychol.*, 1933, 43, 405-421.—With slight modifications, Hull's technique was employed, the subject being tested for 14 minutes of alternating quiet and verbal-suggestion periods. Suggestibility, determined from the magnitude as well as from the speed of the suggested responses shown on the kymograph, was found to increase sharply from the 5th to the 8th year of age and then to decrease more gradually. Negativism appeared related to age in the converse way. Some prestige effect was inferred by the V-curve method of Aveling and Hargreaves from the results with older children.—*J. F. Dashiell* (North Carolina).

3569. Messerschmidt, R. The suggestibility of boys and girls between the ages of six and sixteen years. *J. Genet. Psychol.*, 1933, 43, 422-437.—A battery of eleven suggestion tests adapted from Binet, also from Brown, Slosson, Small, and Maxfield, were used with unselected school children. The suggestibility index increased slightly from 6 to 7 years, then decreased steadily throughout. At 8 of the 11 ages, girls were more suggestible than boys. Those individuals showing the greatest suggestibility for one situation tend to show it for another, strengthening the position of those who assert that suggestibility is a general trait. Some prestige effect is deduced from the results.—*J. F. Dashiell* (North Carolina).

3570. Pensinus, K. Folgen der Entrechtung. (Consequences of deprivation.) *Zsch. f. psychoanal. Päd.*, 1933, 7, 233-242.—Anxiety neurosis in a 4½-year-old child, following severe mental and physical

deprivation. The chief symptoms observed in kindergarten combined, on the one hand, a marked passivity and shyness with, on the other, extreme anti-social behavior in the form of temper tantrums, refusal to participate in school activity, kicking, shrieking, etc.; in addition, he manifested feeding difficulties. The subject was the child of an unwedded mother living with an impoverished and brutal grandparent who herself had a child of the same age. The latter child was greatly favored, and the patient was deprived of all care and affection and subjected to the domination of the child-uncle. Analysis revealed that anxiety was the patient's way of expressing his fear of doing the things which the other child was permitted to do.—*D. Wechsler* (New York City).

3571. **Pörtl, A.** *Verspätete Reinlichkeitsgewöhnung.* (Delayed development of the habit of cleanliness.) *Zsch. f. psychoanal. Päd.*, 1933, 7, 224-232.—Case of a four-year-old neurotic child who continued to soil and wet himself, difficulties which analysis revealed followed a circumcision at the age of two. Cleanliness habits had already previously been established. Among other symptoms were extreme motor inhibitions, passivity, and refusal of food, the last of which was particularly marked at the kindergarten where the child came to the notice of the author. The child's refusal of food at school was seemingly motivated by an effort to avoid dreaded acts of defecation and urination.—*D. Wechsler* (New York City).

3572. **Rahm, K.** *Über die Wirkung des Recresals auf die körperliche und geistige Leistungsfähigkeit.* (The effect of recresal on physical and mental capacity.) *Arch. f. d. ges. Psychol.*, 1932, 86, 459-522.—In a series of ten experiments the author investigates the effect of a recresal solution on adults and children. His results are as follows: (1) There was no evidence of increased physical or mental accomplishment after either a single dose or prolonged administering of recresal. (2) Negative results were also obtained with children. After giving them recresal for several weeks better performance was noted, but there was no evidence that this improvement was the effect of the recresal. (3) Other experiments showed the extraordinary influence of suggestion after taking recresal and also after a solution of bicarbonate of soda. In fact, the improvement in performance was greater after the latter than after the former. (4) Doses of caffeine resulted in even greater accomplishment. (5) The results of the suggestion and the caffeine experiments indicated that the positive effect of recresal found by other investigators was the result of suggestion rather than of recresal. At the beginning of his article the writer presents a critical summary of previous experiments with recresal.—*J. J. Carlson* (Aurora-on-Cayuga).

3573. **Ranson, S. W.** *Sleep.* *Scient. Mo.*, 1934, 38, 473-476.—The region at the junction of forebrain and midbrain has some special significance in sleep, as concluded by Von Economo from studies of encephalitis lethargica.—*J. F. Dashiell* (North Carolina).

3574. **Schmitz, L.** *Zur Untersuchung von Hellsehern und Kurpfuschern.* (Investigations of clair-

voyants and quacks.) Bonn: Kubens, 1933. Pp. 35.—*R. R. Willoughby* (Clark).

3575. **Tiresias, P. N.** *Il libro dei sogni. Con un saggio introduttivo sulle dottrine oniriche dai Babilonesi a Freud.* (The book of dreams, with an introductory essay on dream beliefs from the Babylonians to Freud.) Milan: Hoepli, 1933. Pp. 350.—After an examination of the dream phenomenon from the psychophysiological point of view, the author discusses the dream beliefs held by the Babylonians, Assyrians, Egyptians, Greeks, Romans, Hebrews, Mussulmans, Christians, Persians, Indians, and Japanese, and he describes dream interpretations in popular tradition. Sigmund Freud, the author of *Traumdeutung*, has found a true psychological phenomenon in the dream, viz., the disguised realization of a wish, and he has studied the relations between the manifest content of the dream and latent thoughts. The dream doctrine of the psychoanalyst, which has already been described in numerous works, still has its unbelievers, particularly in the field of metaphysics, which the author briefly treats in his first chapter. The second part of the book contains a full alphabetical dream dictionary.—*V. D'Agostino* (Turin).

3576. **Wittels, F.** *Motherhood and bisexuality.* *Psychoanal. Rev.*, 1934, 21, 180-193.—This is a presentation of four pathological cases wherein the neurosis is centered upon the illusion of motherhood. There are three cases in which the principals did not become mothers, but constructed illusions and hysterical equivalents; in the fourth case the woman did bear children. All of them displayed masculine tendencies and a manifest relation between these tendencies and their illusions of motherhood. Case I, "obsessional neurosis with illusions of motherhood," shows that the desire for children is not necessarily feminine. Case II, "paranoia with illusions of motherhood," shows a masculine type with passionate desires for motherhood which are fulfilled delusionally, and is representative of numerous cases wherein women use their husbands solely as the unavoidable means of having children. Case III, "hysterical pregnancy-illusion," shows a hysterical pregnancy fantasy which was unconscious; and Case IV, "compulsive neurotic motherhood," represents a masculine type with a compulsive desire to have children.—*L. S. Selling* (Institute for Juvenile Research).

3577. **Zucker, K.** *Nature of functional disturbance in cocaine hallucinations.* *Lancet*, 1933, 225, 1479-1480.—Hallucinations experienced in chronic cocaineism show a typical uniformity among themselves. The patient usually complains of tiny insects crawling on the skin or under it. The author interprets these cutaneous hallucinations as being dependent on central processes. Some experimental support is offered.—*D. J. Ingle* (Minnesota).

[See also abstracts 3360, 3369, 3446.]

NERVOUS AND MENTAL DISORDERS

3578. **Aprile, V.** *Schizofrenia a seguito di antroatticotomia destra in individuo a costituzione schi-*

zoide. (Schizophrenia following antro-atticotomy on the right side in a subject with a schizoid constitution.) *Riv. oto-neuro-oftal.*, 1933, 10, 170-179.—The author gives his observations on the case of a psychic syndrome which was so intense that it might well have been considered a case of dementia praecox of the hebephrenic variety (a diagnosis which would have been erroneous), present in a schizoid individual who had undergone an antro-atticotomy. He gives an analysis of the literature relative to the problem whether schizophrenia should be considered a constitutional disorder or an accidental mental disease. From his study of the above case and of the literature, Aprile concludes that the operative injury had given the final impetus to the development of an affection which was already in the process of evolution.—*R. Calabresi* (Rome).

3579. Ashby, W. R., & Stewart, R. M. The brain of the mental defective: a study in morphology in its relation to intelligence. *J. Neur. & Psychopath.*, 1934, 14, 217-226.—In 69 cases of mental defectives and normal controls, a positive correlation (.25) was found between mental age and the cross-section area of the corpus callosum. With body weight and brain weight held constant by partial correlation, however, the relationship disappeared.—*D. G. Marquis* (Yale).

3580. Baruk, H. L'état mental au cours de l'accès catatonique. Rôle de l'onirisme et des idées fixes post-oniriques dans le négativisme, les délires et les hallucinations des catatoniques. Faux aspects de simulation. Étiologie toxique. (Mental state during the catatonic episode. Role of onirism and post-oniric fixed ideas in negativism, the delusions and hallucinations of catatonics. False views of simulation. Toxic etiology.) *Ann. méd.-psychol.*, 1934, 92, 317-346.—In the first or clinical section, several cases of catatonia are presented. In the second section, the nature and pathogenesis of the mental troubles which accompany catatonia are discussed. Some catatonics say they could move if they wished, but their power to will seems to be lost or controlled by certain hallucinations or fixed ideas. For instance, the patient may believe he is dead. The psychological and motor troubles are indissolubly linked together. These psychomotor troubles have an organic toxic etiology.—*M. B. Mitchell* (New Hampshire State Hospital).

3581. Bender, L. Disturbances in visuomotor Gestalt function in organic brain disease associated with sensory aphasia. *Arch. Neur. & Psychiat.*, 1933, 30, 514-537.—A series of test forms to be copied were presented to eight patients with organic brain disease in which sensory aphasia was a conspicuous symptom. By means of these copied forms, the Gestalt function in visuomotor patterns was studied with the following indications: "The Gestalt principles are never fixed, but are the integrative response of the personality-as-a-whole in any given situation; in disintegrating cerebral lesions they tend to revert to more primitive levels, and, as the brain recovers from its insult, they tend to follow the laws of developmental maturation in returning to the higher integrative responses."—*V. M. Jones* (Boston Psychopathic Hospital).

3582. Bertolani Del Rio, M. Infantilismo mixedematoso. (Myxedematous infantilism.) *Boll. Soc. med.-chir. Reggio Emilia*, 1933, No. 1, 12-19.—The author describes a case of myxedematous infantilism in a subject 18 years of age, 82 cm. in height, whose mental development was that of a child of 2 to 3 years of age; he presents the morphological, physiological, and psychological peculiarities of the disease.—*R. Calabresi* (Rome).

3583. Bertolani Del Rio, M. La vita affettiva del mixedema conclamato. (The affective life in myxedema cases.) *Riv. di neur.*, 1933, No. 1, 114.—Observations on a clinical case (a patient with severe myxedema) showed that the patient, whose intellectual development had been greatly reduced, was still able to experience an affective life (emotions and feelings) to a greater extent than would have been supposed possible from the clinical examination.—*R. Calabresi* (Rome).

3584. Blum, K. Über die Abhängigkeit psychischer und nervöser Störungen von atmosphärischen Einflüssen. (On the dependence of nervous and mental troubles on atmospheric influences.) *Arch. f. Psychiat. u. Nervenkr.*, 1932, 96, 171-196.—The polar cycloids, the neuroses of altitudes, the neurasthenias of the tropics, are often, according to the author, psychic reactions to an unsuccessful acclimatization. Cohabitation with inferior races causes a laxity of convention, and leaves a free field to violence. As regards psychoses, the different clinical pictures presented in different regions of the world are often due to differences of race and culture. There is only one point which has been made for the psychiatry of the tropics, viz., the periodicity and astro-psychic phenomena described by Hellpach.—(Courtesy *Année psychol.*)

3585. Braatøy, T. Sinnssykdom og emigrasjon. Nogen elementære bemerkninger om psykiatri og sociologi. (Insanity and emigration. Some elementary remarks on psychiatry and sociology.) *Tidsskr. f. d. norske lægefor.*, 1934, 54, 167-183.—Criticism of the study of Ö. Ödegaard, with main emphasis on the point that Ödegaard has committed the error of extending his conclusions from his clinical material of Norwegian-born inmates in Minnesota to the entire sociological group, the Norwegian emigrants.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

3586. Brown, F. W. The first census of state institutions with respect to mentally diseased, mentally defective and epileptic persons accused of crime and delinquency. *J. Psycho-Asthenics*, 1933, 38, 358-374.—(Courtesy *Bibliographia Eugenica*).

3587. Brugger, C. Psychiatrische Ergebnisse einer medizinischen, anthropologischen und soziologischen Bevölkerungsuntersuchung. (Psychiatric results of a medical, anthropological and sociological study of a population.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 146, 489-524.—All bodily and mental disorders in the population (5,425) of five communes of the Bavarian Allgäu have been registered. These investigations are to form the beginning of greater medical undertakings. Noticeable mental disorders

were found in 406 persons or 7.48%. Corrected percentages for various disorders are: schizophrenia, 0.41%; manic-depressive psychoses, 0.42% (or perhaps only 0.31%); epilepsy, 0.15%; arteriosclerotic dementia, 0.21%; senile dementia, 0.36%; hysteria, 0.13%; neurasthenia, 0.16%; psychopathia, 0.38%; "peculiar" individuals, 0.31%; alcoholism, 0.38%; oligophrenia, 5.49%; imbeciles and idiots, 2.22%. Bibliography.—C. W. Fox (Rochester).

3588. Bryan, E. L. A study of forty cases exhibiting neologisms. *Amer. J. Psychiat.*, 1933, 13, 579-595.—Neologisms are considered first from the point of view of the philologist, then of the psychologist and psychiatrist. Productions of 40 schizophrenic cases presenting neologisms were studied, and the author concludes that "the neologisms of the insane are originated and constructed in much the same way as those of the normal. . . . Probably the great difference in the neologisms of the insane lies, as demonstrated by Schilder and others, in their significance as key words to an uncommunicated mental content that with intensive study in each case might yield its hidden mechanisms."—N. Goldman (Boston Psychopathic Hospital).

3589. Burkhardt, H. Das schizophrene Vorbeireden. Beitrag zum Problem des Autismus. (Schizophrenic paralogia. Contribution to the problem of autism.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 145, 99-111.—Characteristic examples of paralogia are given. This disorder is presented as an important expressive phenomenon in schizophrenia. The common explanation of its various components lies in the basic autistic nature of the schizophrenic. There is some evidence that autism is to be considered as primary, i.e., non-reactive. Bibliography.—C. W. Fox (Rochester).

3590. Cardona, F. La microglia nell' idiozia mongoloide. (Microglia in mongoloid idiocy.) *Riv. di pat. nerv. e ment.*, 1933, 41, 293-301.—A slight quantitative increase of microglia of the cerebral cortex was found, without serious progressive or regressive phenomena, and a normal condition of microglia at the base of the brain. Thus the hypothesis was confirmed that cerebral lesions in mongoloid idiocy are especially related to the cortex.—R. Calabresi (Rome).

3591. Catalano, A. Sulla parafrenia fantastica. (Paraphrenia phantastica.) *Giorn. psychiat. e neuropath.*, 1932, 4, 385-394.—The author discusses Kraepelin's paraphrenia phantastica in its relation to the fundamental concept of paraphrenia, treating it, in harmony with Bumke's ideas, as a syndrome which is independent of other forms of paraphrenia and of dementia praecox. Basing his opinion on a study of two clinical cases, he states that Bumke's conception is correct and that it is also advisable to include dementia phantastica in the concept of dementia praecox.—R. Calabresi (Rome).

3592. Clark, L. P. What is the psychology of Little's disease? *Psychoanal. Rev.*, 1934, 21, 131-145.—Organic factors in Little's disease—the traumatic brain injury and its sequelae—cannot be overlooked, yet psychological conceptions may supplement the

structural formulations and indicate the organic processes by which the effects of the brain injury are translated into emotional tensions and reactions. They consider the psychic wound and its influence in the clinical picture. Psychoanalytically the ego is considered the central organizing and directing unit of the personality, and from this viewpoint an injury to the brain must be considered an injury to the ego. The theory of psychological factors in Little's disease is that the tendency may be to impound the libido within the personality as compensation for the crippled ego, which may take the form of primary or secondary narcissism. Various forms of emotional arrest arising out of reaction to organic injury may fail to add impetus to the power of mental functioning or they may interfere with the inception, retention or use of knowledge. A long case history seemingly indicates that the psychic wound consists of an impairment to the ego's normal power.—L. S. Selling (Institute for Juvenile Research).

3593. Claude, H., & Masquin, P. L'évolution du dessin chez un paralytique général avant et après malarithérapie. Contribution à l'étude de l'action des traitements actuels de la paralysie générale. (The evolution of drawings of a general paretic before and after malaria therapy. Contribution to the results of present treatment of general paresis.) *Ann. méd.-psychol.*, 1934, 92, 356-374.—A case is presented of an artist who was treated with malaria for general paresis. One of the first symptoms noted by his wife was the hypomanic type of painting. He could still use a brush, but his paintings were inaccurate. A little later, he became very confused mentally and ceased to paint entirely. Under malaria treatment, he gradually began to scribble, then to make childish drawings, and slowly to regain his old technique. His drawings, however, never regained the originality of his former work. The author thinks that when malaria is given during the dynamic disfunctioning period before there is an organic lesion, there may be a complete remission. When administered later, it can effect only a stability and not a complete cure.—M. B. Mitchell (New Hampshire State Hospital).

3594. Courbon, P., & Leconte, M. Délire systématisé de jalousie conjugale. (Systematized delusion of conjugal jealousy.) *Ann. méd.-psychol.*, 1934, 92, 391-396.—A 42-year-old woman showed an abnormal amount of jealousy of her husband. She abused him and tormented those who she thought were guilty of trying to alienate his affections. No other symptoms were found.—M. B. Mitchell (New Hampshire State Hospital).

3595. Crockett, H. M. Boarding homes as a tool in social case work with mental patients. *Ment. Hygiene*, 1934, 18, 189-203.—In 1930 Worcester State Hospital began to utilize its system of family care for the readjustment of convalescent patients. Thirty years prior to that, chronic mental patients had been placed in boarding homes. The necessity for extreme care in the selection of homes for convalescent patients is emphasized. The needs of the patient in relation to the home atmosphere and per-

sonality of the caretakers are of utmost importance. The physician and psychiatrist keep in touch with the patient's progress. The social workers endeavor to develop a greater understanding on the part of the patient's relatives and friends during his adjustment in the convalescent home. No patient remains longer in such a home than is necessary to prepare him to take his place in the outside world. These homes are of such great psychotherapeutic value that wherever social service supervision can be given, their use should increase.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3596. Crookshank, F. G. The psychological interest in general practice. *Brit. Med. J.*, 1932, No. 3717, 599-604.—Psychological training is necessary for the general practitioner, who has a number of functional cases to treat which appear as hysteria, psychasthenia, anxiety or sexual neuroses, and psychoneuroses. The author invokes the usefulness of modern psychotherapy suggested by the views of Adler, which suggests when to attribute, e.g., constipation to avarice, or anxiety to lack of sexual satisfaction.—(Courtesy *Année psychol.*)

3597. Dalma, G. Sul significato della dissociazione dei riflessi nella tabe. (On the significance of the dissociation of reflexes in tabes dorsalis.) *Riv. di neur.*, 1933, No. 1, 109.—The abolition of the patellar or the Achilles reflex, or, to speak more exactly, their inhibition, is due to an interruption in the arc of the central excitatory reflex, which includes the posterior tracts of the cord. However, the conservation of the medio-pubic reflexes, sural and gluteal, is due to their primitive nature, which is purely segmental and which renders them less subject to the influence of other pathways and of the higher centers.—*R. Calabresi* (Rome).

3598. Danby, T. A. The sex incidence of mental deficiency (amentia) with a consideration of mental variation in the sexes. *Ment. Welfare*, 1934, 15, 8-16.—*R. R. Willoughby* (Clark).

3599. De Sanctis, S. La psicopatologia di ieri, di oggi, di domani. (The psychopathology of yesterday, today, and tomorrow.) *Rass. stud. psichiat.*, 1933, 22, 183-205.—*R. Calabresi* (Rome).

3600. Doll, E. A. Community control of mental deficiency in the United States. *J. Ment. Sci.*, 1933, 79, 578-589.—The main facts touched upon are: (1) Incidence: about 1% of the total population is mentally deficient. (2) Institutional programs: the 83 state institutions and 10 private schools take care of about 6% of the cases, with increasing emphasis upon parole. (3) The school situation: legal and extra-legal provisions in 15 and 22 states, respectively, care for about 10% of the cases. There is an unwillingness to separate the maladjusted subnormal from the feeble-minded. 80% of the instruction is academic, 20% is manual and occupational. (4) Community programs are carried out through a few state agencies, welfare societies, and urban clinics of various types. These are inadequate in number and usually place more emphasis upon diagnosis than upon treatment. (5) The classification of types of mental deficiency

made by the White House Conference Sub-Committee is presented as a program under which such agencies might be organized. (6) Research: we are in need of an international exchange of published research. In general community control is more developed in England than in the United States.—*L. M. Hatfield* (Maine).

3601. Doll, E. A. Annual report, Dept. of Research, Training School, Vineland, N. J. *Tr. School Bull.*, 1933, 30, 118-124.—Major activities show a program with several aspects: (1) Eight courses are offered in affiliation with Rutgers University; because of the professional recognition from Rutgers, graduate work is recognized elsewhere also. (2) Professional relations are maintained with several scientific societies. (3) There are contacts with lay groups, and (4) professional correspondence. (5) The activities of the clinic comprise about half of the program. (6) Research in physiological psychology under George Kreezer includes mental deficiency and intelligence, emotional excitability, and motor handicaps of the birth-injured.—*E. M. Achilles* (Columbia).

3602. Dunn, M. Psychiatric treatment of the effects of the depression: its possibilities and its limitations. *Ment. Hygiene*, 1934, 18, 279-286.—There are many individuals who need aid in adjusting to life. This need has been more apparent as the economic burdens of the depression have become pronounced. They need not only an adequate standard of living, but a philosophy of life, as well as vocational and industrial adjustment and the establishment of wholesome mental and physical habits. These must be met by the public with an awakened sense of responsibility.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3603. Ellis, W. J. Mental deficiency as a state problem. *Tr. School Bull.*, 1933, 30, 105-111.—The state program in New Jersey is (1) diagnosis and registration for the definitely feeble-minded, (2) therapeutic prevention, and (3) supervision. The hopeful sign is that large proportions of mentally deficient persons can be diverted into channels of social usefulness.—*E. M. Achilles* (Columbia).

3604. Fleck, U. Tetanien und Nervensystem. (Tetany and the nervous system.) *Fortsch. Neur. Psychiat. u. Grenzgeb.*, 1934, 6, 97-120.—The first section of this article deals with the pathogenesis of tetany, and the second is concerned with the clinical symptomatology. The remainder of the article is devoted to the various treatments reported by investigators. These treatments include: transplantation of the parathyroid glands, the use of parathyroid extract, treatment with lime, with ergosterin, and the treatment of tetany cataract. There is a very full bibliography.—*D. S. Oberlin* (Newark, Del.)

3605. Galant, J. S. La dottrina delle funzioni rudimentali neuro-psichiche nell'uomo e la schizofrenia. (The doctrine of the rudimentary neuropsychic functions in man and schizophrenia.) *Arch. di antrop. crim. psichiat. e med. leg.*, 1933, 53, 583-585.—Latent rudimentary neuropsychic functions make their appearance in infancy before the central nervous

system and especially the cortex has attained full development and in dementia praecox patients whose personality becomes disintegrated. In the latter case the author believes that the work cure would give the best results if it were part of a many-sided rational pedagogic system.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

3606. Garvey, C. R. **Physiognomic and other morphologic factors in the differential diagnosis of manic-depressive and schizophrenic psychoses.** *Psychol. Bull.*, 1933, 30, 739.—Abstract.—*J. F. Dashiell* (North Carolina).

3607. Glover, E. **Medical psychology or academic (normal) psychology; a problem in orientation.** *Brit. J. Med. Psychol.*, 1934, 14, 31-49.—A discussion concerning an elementary course in dynamic psychology for preclinical students of medicine. The thesis is that academic (normal) psychology is irrelevant and misleading; and that the preclinical course should be taught by trained medical psychologists. A suggested syllabus for 30 lectures follows: animal psychology, 6 lectures; comparative anthropology, 8 lectures; child psychology, 10 lectures; psychology of adolescence and adult life, 6 lectures. Throughout the emphasis should be on instincts, the influence of fear and emotional conflict, evolution, and regression.—*E. R. Hilgard* (Stanford).

3608. Greenwood, M., & Smith, M. **Some pioneers of medical psychology.** *L. Brit. J. Med. Psychol.*, 1934, 14, 1-30.—After a brief sketch of the classical Greek period, the popularization of Greek psychology by Cicero at Rome is considered, especially in reference to his translations of the Greek technical vocabulary. The remainder of the paper is devoted to the views and influence of Galen, Plotinus, and St. Augustine.—*E. R. Hilgard* (Stanford).

3609. Harms, E. **Seelendeutung, Seelenheilung und psychotherapeutische Weltanschauung.** (Interpretation and cure of mental phenomena and the psychotherapeutic point of view.) *Psychiat.-neur. Woch.*, 1934, 36, No. 11.—*R. R. Willoughby* (Clark).

3610. Holmer, P. **A state-wide mental-hygiene program for Pennsylvania.** *Ment. Hygiene*, 1934, 18, 205-217.—Pennsylvania, in launching its state-wide program, is concentrating the efforts of the bureau staff on two or three hospitals in the same section of the state. As soon as these hospitals are running their mental-hygiene clinics successfully, the bureau staff can repeat the process in another section of the state, until the entire state has been covered. Each clinic will serve a community area. The staff will consist of a psychiatrist, a psychologist, a social worker, and a local physician, who will consult on physical problems, and a part time clerical worker. The social worker and psychologist are to act as field workers in the clinic area.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3611. Kasanin, J., & Rosen, Z. A. **Clinical variables in schizoid personalities.** *Arch. Neur. & Psychiat.*, 1933, 30, 538-566.—*R. R. Willoughby* (Clark).

3612. Katz, S. E. **The frequency of abnormal behavior traits in normal and abnormal individuals.**

Psychol. Bull., 1933, 30, 739-740.—Abstract.—*J. F. Dashiell* (North Carolina).

3613. Koenen, J. H. M. **Zwakzinnigheid bij kinderen. Haar beteekenis in paedagogisch en sociaal opzicht op grond van een onderzoek in eenige gemeenten in Noord Brabant.** (Feeble-mindedness of children. Its pedagogic and social significance as examined in some municipalities of North Brabant, Holland.) Leiden: Acad. Proefschrift, 1933.—A dissertation in which the results of an inquiry into the frequency of feeble-mindedness—as distinguished from backwardness—have been presented. The number of feeble-minded boys was greater than that of girls (2.6% and 1.9%); feeble-mindedness was most frequent in the lower strata of society. In connection with other inquiries, e.g., that of E. O. Lewis, the author is of the opinion that the number of feeble-minded persons is increasing, which may have serious consequences for society. Their part in propagation may be compensated only by a greater fertility of persons with favorable mental faculties.—*C. Rothe* (Koloniaal Instituut).

3614. Krauss, S. **Der seelische Konflikt. Psychologie und existentielle Bedeutung.** (Mental conflict. Its psychology and existential significance.) Stuttgart: Enke, 1933. Pp. 126.—The author tries to establish the following six theses: (1) mental conflict is a dynamic totality in regard to experience, behavior and accomplishment; (2) the totalitarian character of the conflict results from a quantity of moments of a phenomenal, functional and genetic nature; (3) psychic conflict is recognizable by a characteristic complex of signs of appearance, being, and accomplishment; (4) conflict is an active principle, an intimate effort to re-establish and stabilize unity; (5) in its fundamental traits conflict reveals itself as a spiritual principle; (6) conflict is not destructive, but is rather an instrument of self-realization.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

3615. Levin, M. **The pathogenesis of narcolepsy.** *J. Neur. & Psychopath.*, 1933, 14, 1-14.—Certain clinical features of narcolepsy are interpreted in the light of Pavlov's studies of inhibition. Nocturnal restlessness and cataplexy, cardinal symptoms of narcolepsy, may be regarded as special instances of "localized sleep." In the former the inhibition is confined to the substrate of consciousness; in the latter to the motility substrate. Such localized inhibition may be dispelled by certain extraneous stimuli (disinhibition).—*D. G. Marquis* (Yale).

3616. Levin, M. **Military aspects of narcolepsy, with remarks on the pathogenesis of narcolepsy and on fatigue.** *J. Neur. & Psychopath.*, 1933, 14, 124-131.—Certain situations in military life (inhibition of flight during bombardment, differentiation of stimuli in sentry duty) constitute natural experiments in which are duplicated the essential conditions of Pavlov's laboratory experiments. The occurrence of narcoleptic symptoms in response to these situations is interpreted as a phenomenon identical with the occurrence of inhibition and sleep in conditioned reflex experiments.—*D. G. Marquis* (Yale).

3617. Lindner, T. Om konstitutionsterapi vid psykoser, framför allt vid schizofreni. (On constitution therapy in psychoses, especially schizophrenia.) *Svensk. läkart.*, 1933, 49, 1313-1328.—This is a discussion of the works and methods of Bernhard Aschner of Vienna, with special reference to his *Die Krise der Medizin, Lehrbuch der Konstitutionstherapie*, now in its fifth edition, and the later work, *Heilerfolge der Konstitutionstherapie bei weiblichen Geisteskrankheiten, insbesondere bei Schizophrenie*. According to Lindner, Aschner's work might practically revolutionize modern psychiatry.—M. L. Reymert (Mooseheart Laboratory for Child Research).

3618. Lindner, T. Präst och läkare. (Minister and physician.) *Svensk. läkart.*, 1933, 51, 1386-1395.—The writer discusses the possibilities of cooperation between the minister and the physician, summing up his conclusions in the following points: (1) Medical psychotherapy should be non-sectarian from the point of view of the physician, but he should use the greatest tolerance in regard to the different religious dispositions of his patients. (2) The religious care of the patient should rest with the minister, who should be well instructed, however, in normal and abnormal psychology. (3) Both theology and internal medicine should incorporate a knowledge of psychotherapy and neuroses. Selection of spiritual leaders as well as physicians should be entirely at the discretion of the patient. Only in such ways can a natural cooperation between minister and physician be established.—M. L. Reymert (Mooseheart Laboratory for Child Research).

3619. Marx, F. M. Occupational therapy in mental hospitals and the economic depression. *Occup. Therap. & Rehab.*, 1934, 13, 93-95.—The analogy is pointed out between "made work" for the unemployed and occupational therapy in mental hospitals. In both cases it is necessary to adapt the individual to a work schedule after a somewhat chronic period of lack of work or lack of interest. In either case it is desirable to keep the work at a high level of quality. In a period of depression it may be necessary to avoid actual hospital duties as part of the therapy program, but to stress controlled diversion so as not to deprive normal persons of employment in the hospital.—H. E. Burt (Ohio State).

3620. Mirabella, E. Il contagio nei processomani. (Contagion in litigation mania.) *Arch. di antrop. crim. psichiat. e med. leg.*, 1933, 53, 586-597.—The author reviews a number of cases of litigation mania to prove the existence of contagion transmitted through suggestion. This mania is due to hereditary predisposition, mental inferiority, and sometimes credulity. In litigation mania proper hallucinations are absent. The evolution of the mental symptoms is identical in the members of the same family.—R. E. Schwarz (V. A. Facility, Northport, N. Y.).

3621. Morel, F. Contribution à l'étude des hallucinations visuelles du délirium tremens. (Contribution to the study of visual hallucinations in delirium tremens.) *Arch. suisses de neur.*, 1932, 30, 178-182.—The author conducted systematic research with pa-

tients suffering from delirium; flat on his back, with one eye covered, the patient fixated the other eye on the ceiling, then fixated the first eye, then both at once. At 3 to 10 seconds modifications appeared in the central field with the texture of bands, of grayish shafts, sometimes of gratings. This scotoma is intermittent, appearing in general a little before the crisis and disappearing with it. These forms seem to be the point of departure for the hallucinatory interpretations of animals.—(Courtesy *Année psychol.*)

3622. Myers, G. C. The present crisis and the mental health of the school child. *Ment. Hygiene*, 1934, 18, 294-298.—The writer draws a most discouraging picture for school children today. The financial worries of the teachers often result in mental ill health, which in turn makes many children victims of mental illness. The narrowing of the school program to the three R's and the elimination of the creative and dramatic arts has been brought about by the depression. However, all these hardships will interest school officials in the personality of the child, and when the time comes that the child guidance clinic is restored to the schools, the teachers as a whole will cooperate with it wholeheartedly.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.).

3623. Nordman, D. A propos de la dysbasia lordotica. (Concerning lordotic dysbasia.) *Loire méd.*, 1933, 47, 1-4.—A person with this affection may, while in the standing, sitting or walking position, fall over backwards with laborious contortions; normality returns during sleep. The author cites the case of a man who presented these disturbances but only imitated a true case; he was completely cured.—Math. H. Piéron (Sorbonne).

3624. Nycander, G. En sjukdom som bestraffas. (A disease which is punished.) Stockholm: Wahlström & Widstrand, 1933.—A general discussion of sexual aberrations, with special reference to homosexuality. The book was motivated by a motion put before the Swedish Congress by Lundstedt, in which are advocated several changes in the Swedish penal code as regards homosexual acts.—M. L. Reymert (Mooseheart Laboratory for Child Research).

3625. Ödegaard, Ö. Sinnssykdom og emigrasjon. Bemerkninger om nasjonalromantikk og socialromantikk. (Insanity and emigration. Remarks on national romanticism and social romanticism.) *Tidsskr. f. d. norske lægefor.*, 1934, 54, 346-352.—The writer here gives detailed rejoinders to the criticism of Braatøy. (See VIII: 3585.)—M. L. Reymert (Mooseheart Laboratory for Child Research).

3626. Odolesco, G. Les rapports entre la psychologie et la psychiatrie. (The relations between psychology and psychiatry.) Bucharest: 1932. Pp. 64.—The author is concerned with determining the object and the domain of psychiatry and psychology, and presents, especially in the problem of intelligence, but also in activity, affectivity and personality, the question of their reciprocal relations. Having mental life as the common object, psychiatry makes contact, through psychology, with biology, and learns the biological nature of mental phenomena, while psy-

chology obtains from the data of psychiatry the possibility of clarifying many of its problems.—(Courtesy *Année psychol.*)

3627. Pfister, H. O. *Zählungen über Zunahme und Altersaufbau der Patienten der psychiatrischen Klinik Burghölzli-Zürich.* (Statistics on the increase and the age of patients of the psychiatric clinic of Burghölzli at Zurich.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1932, 142, 223-244.—The increase in number of admissions since the war greatly surpasses the increase in the population of the canton of Zurich, and is marked for very young and old patients. The smallest increase is for patients from 30 to 49 years of age, the largest for patients from 20 to 29 years. The alcoholics constitute the same 24% as before the war, while the schizophrenics have greatly increased, now representing 40% of all admissions. The psychopaths have increased from 3% before the war to 11%.—(Courtesy *Année psychol.*)

3628. Pintus, G. *Il comportamento motorio dei frenastenici.* (The motor behavior of hypophrenic cases.) *Riv. neuroglia*, 1933, No. 1, 106.—From his examination of 70 serious hypophrenic cases, the author found that 80% exhibited motor disturbances. These three types were distinguishable: hypokinetic, parakinetic, and hyperkinetic.—*R. Calabresi* (Rome).

3629. Piotrowski, Z. *Work habits as a means of differentiating native and acquired mental deficiency.* *Psychol. Bull.*, 1933, 30, 728-729.—Abstract.—*J. F. Dashiell* (North Carolina).

3630. Rickers-Ovsiankina, M. *A study of the behavior of schizophrenics in a free situation.* *Psychol. Bull.*, 1933, 30, 740-741.—Abstract.—*J. F. Dashiell* (North Carolina).

3631. Rossi, E. *Valore della costituzione nelle malattie mentali e considerazioni sintetiche sul paranoidismo.* (The importance of constitution in mental diseases and synthetic considerations on paranoid states.) *Giorn. psichiat. e neuropat.*, 1932, No. 4, 395-431.—The individual constitution is considered to be an endogenous cause in the pathogenesis of diseases and also in mental disturbances.—*R. Calabresi* (Rome).

3632. Sacerdote, A. *La mancanza di sanità mentale quale causa di impedimento al matrimonio nel progetto per un nuovo Codice Civile italiano.* (The absence of mental health as a cause to prevent matrimony in the project for a new Italian civil code.) *Arch. di antrop. crim. psichiat. e med. leg.*, 1933, 52, 603-614.—The author discusses the motives inspiring this new code and the difficulties in its application to concrete cases.—*R. E. Schwars* (V. A. Facility, Northport, N. Y.)

3633. Sauer, M. *Musikalische Ausbildung eines schwachsinnigen Mädchens.* (Musical development of a feeble-minded girl.) *Zsch. f. Kinderforsch.*, 1933, 41, 354-356.—An account of the methods employed to train a feeble-minded girl to play the piano.—*K. C. Pratt* (Michigan Central State Teachers College).

3634. Scheid, K. F. *Die allgemeine Psychopathologie im Jahre 1933.* (General psychopathology

in 1933.) *Fortsch. Neur. Psychiat. u. Grenzgeb.*, 1934, 6, 144-165.—This is an article devoted to a general review of recent investigations in the field of psychopathology. The pathology of visual perception, of ideas and thinking, of drive and volition, awareness of time, of the self, space consciousness, memory, intelligence, consciousness, and personality as the background of experience are all dealt with in sections devoted to each topic. The investigations of numerous workers in these various fields are reviewed briefly. There is a complete bibliography.—*D. S. Oberlin* (Newark, Del.)

3635. Schumacher, H. C. *The depression and its effect on the mental health of the child.* *Ment. Hygiene*, 1934, 18, 287-293.—The depression is responsible for the greater complexity of emotional involvements among clinic cases. The parent's emotional troubles cause conflicts in the child. The depression plays a prominent part in stealing among children. Among poorer children truancy has declined. However, among some adolescents some truancy is caused by the depression, since at the beginning of the depression it was easier for the younger person to secure employment than for the parents. The depression has made boys and girls leave home to escape nagging because they had no jobs. In Cleveland each year of the depression has increased the number of girls brought in on the charge of soliciting. The records show that these girls are younger than in previous years. Cuts in school budgets will bring dire results by limiting the educational opportunities of children.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3636. Shipley, W. C. *A comparative physiological study of perseveration in psychopathological patients and in normals.* *Psychol. Bull.*, 1933, 30, 740.—Abstract.—*J. F. Dashiell* (North Carolina).

3637. Strakosch, F. *A comparison of family constellation, childhood diseases and sex factors in a group of normal and psychopathic individuals.* *Psychol. Bull.*, 1933, 30, 739.—Abstract.—*J. F. Dashiell* (North Carolina).

3638. Tinel, J. *Coincidence familiales de démence précoce et de psychose périodique.* (Familial coincidences of dementia praecox and periodic psychosis.) *Ann. méd.-psychol.*, 1934, 92, 396-405.—Three cases are presented in which some members of a family are diagnosed dementia praecox while others are diagnosed manic-depressive psychosis. The author considers that both syndromes are produced by the same toxic infection. Which will occur in a particular individual depends upon the gravity of the lesion produced in the central nervous system. If it is slight, the patient will recover and it will be called a periodic psychosis. If it is more severe, the patient will deteriorate and it will be called dementia praecox.—*M. B. Mitchell* (New Hampshire State Hospital).

3639. Turner, F. D. *Mental deficiency: presidential address at the 92nd annual meeting of the Royal Medico-Psychological Association, July, 1933.* *J. Ment. Sci.*, 1933, 79, 563-577.—After a brief resumé

of Seguin's work, its influence upon the early history of English institutions, and a review of the past and present proportion of voluntary sources and state and local aid for these institutions, the speaker contrasts the alarmists' view (as characterized by the eugenicists' emphasis upon heredity with its subsequent small hope of cure) with the wider outlook of Seguin (which has become modern)—that of training, stabilization, and resocialization. To realize this aim institutions are urged (1) to establish more colony branches (the practice initiated by Bernstein at Rome, N. Y.), and (2) to make further use of parole.—*L. M. Hatfield* (Maine).

3640. Wittmann, M. *Wirkungsweisen von farbeindrücken auf schwachsinnige Kinder.* (Effects of color impressions upon feeble-minded children.) Leipzig: Hirzel, 1933. Pp. 121.—The author deals with the properties, effects, and methods of successive and varied presentation of colors, single or in groups, applying Goldschmidt's method of altering the contours of the colored surface. He also accepts Goldschmidt's postulate with regard to the correspondence between rhythmic successions of colors and melodic successions of sounds. He claims that color education may serve to reinforce weak ability to respond intelligently to sensory stimuli, and thus gradually stimulate the total personality. A proposal is added to use the play of colors as a substitute for music for the deaf and dumb.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

3641. Worster-Drought, C. "Hystero-epilepsy." *Brit. J. Med. Psychol.*, 1934, 14, 50-82.—Clinical considerations differentiating epileptic and hysterical fits; mental characteristics of epilepsy; mechanism and etiology; diagnosis and treatment. The coexistence of hysteria and epilepsy in the same individual is far more general than is supposed. Bibliography.—*E. R. Hilgard* (Stanford).

3642. Ziveri, A. *L'assassino del Presidente Doumer era o non era pazzo?* (Was the assassin of President Doumer insane or not?) *Arch. di antrop. crim. psychiat. e med. leg.*, 1933, 53, 338.—On the basis of documentary evidence, the author shows that the assassin was insane and hence irresponsible, contrary to the decision of psychiatrists.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

[See also abstracts 3376, 3452, 3530, 3533, 3534, 3548, 3576, 3577, 3646, 3700, 3703, 3707, 3713, 3775, 3853.]

PERSONALITY AND CHARACTER

3643. Baganz-Lehmann, M. *Aufgabe und Ziele einer wissenschaftlichen Frauenpsychologie.* (Problems and aims of a scientific psychology of woman.) *Indus. Psychotechn.*, 1933, 10, 335-339.—Means of finding solutions for the difficult problems of a psychology of woman are suggested. Some of the problems listed are (1) upbringing and teaching of girls, (2) occupations for women, and (3) working conditions for women.—*H. J. P. Schubert* (Buffalo).

3644. Berner, B. *Mannen på 50 og kvinnen på 40.* (The man at 50 and the woman at 40.) Oslo: Aschehoug, 1933. Pp. 145.—The author endeavors in a popular form to give the characteristics of the man at 50 and the woman at 40, and also offers critical explanations on the basis of modern science. The main chapter headings are: Life urge and urge for happiness; do we live longer or do we die more slowly; what does it mean to get old; the man at 50 and the woman at 40; the misunderstood rejuvenation problem; what can the second youth offer us; the second youth from an economic viewpoint.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

3645. Binder, H. *Die Helldunkeldeutungen im psychodiagnostischen Experiment von Rorschach.* (The significance of light and dark in the psychodiagnostic experiment of Rorschach.) *Arch. suiss. de neur.*, 1932, 30, 1-67; 233-286.—Studies made with 271 subjects, 51 normals, 111 psychopaths, 58 neurotics, and 61 psychotics, with Rorschach's ink blot. The author's attention is directed to the categories of response concerned, not with color, but with brightness. In some responses brightness is the center of the interpretation. These responses, strongly influenced by affective attitude and having a definite relation to responses of movement, appear in a small percentage of normals (1%), but much more frequently in neurotics (3.3%), and above all in psychopaths (4.4%), assuming in the author's eyes a certain diagnostic value.—(Courtesy *Année psychol.*)

3646. Brown, F. *The school as a subsidiary of the psychological clinic in the prevention of neuroticism in childhood.* *Educ. Method*, 1934, 14, 1-5.—A psychoneurotic inventory, for use in identifying and analyzing neurotic behavior in children, was constructed by the author, and administered to 1633 school children between the ages of 9 and 14 years. The reliability of this inventory, after revision and validation of items, was found to be $.896 \pm .007$. "The utilization of reliable psychoneurotic inventories, cooperation between parents and teachers, emphasis upon the personality adjustment of the teacher herself, and the presence of a school psychologist or trained mental hygienist to whom problem cases could be referred, would aid materially in reducing the number of neurotic and maladjusted children in our schools."—*S. H. Newman* (Clark).

3647. Burkersrode, J., & Ille, K. *Charakterbeurteilung von Kindern und Jugendlichen auf Grund typologischer Betrachtungsweise.* (Judgment of children's and juvenile character on the basis of typological considerations.) *Päd.-psychol. Arbeit.*, 1933, 20, 3-84.—After setting forth the previously discovered results of typology the two principal types, schizothyme and cyclothyme, are discussed in detail. Results obtained from the use of this new questionnaire for judgment of oneself, of someone else, and of teachers' judgments of 217 children and youths are compared with experimental findings on apprehension, attention, ability to transpose, diversion, form and color reactions, etc. A high degree of conformity is found to exist between the results.

Typological methods enable the teacher to show the complicated structure of children's characters in most essential points. Part I ends with three supplements: (1) characterization of children by children in the seventh school year; (2) characterization of oneself and of others in the ninth school year; (3) two examples for filling out the questionnaire for self-characterization.—*L. S. Selling* (Institute for Juvenile Research).

3648. Campbell, A. A. The personality adjustments of only children. *Psychol. Bull.*, 1934, 31, 193-203.—"It is interesting to observe how theory and research have drawn apart in their conclusions as to the efficacy of the only-child constellation as a personality determiner . . . theory appears to have changed very little since Hall's day. . . . Research has given increasingly little support to the armchair viewpoint." A bibliography of 75 titles is furnished.—*J. F. Dashiell* (North Carolina).

3649. Carter, H. D. Twin-similarities in personality traits. *J. Genet. Psychol.*, 1933, 43, 312-321.—The Bernreuter Personality Inventory was applied to 133 pairs of twins classified as to type. The four traits measured by the test were shown to be practically independent of age and intelligence. Monozygotic twins were markedly more similar as to neurotic tendency, self-sufficiency, and dominance, but not as to introversion. Like-sex fraternal pairs were definitely more similar than unlike-sex pairs in introversion and less definitely in neurotic tendency and dominance; but the like-sex fraternal pairs showed a negative correlation in self-sufficiency—which raises a problem.—*J. F. Dashiell* (North Carolina).

3650. Daniell, R. P. Personality differences between delinquent and non-delinquent negro boys. *J. Negro Educ.*, 1932, 1, 381-387.—The purpose of this study was to determine the differences in character and personality traits between groups of delinquent and non-problem negro boys. The mentality of the three groups studied was approximately the same and the boys were predominantly from the fifth grade. The following battery of tests as used: Haggerty Intelligence Examination, Delta II; Woodworth-Mathews Questionnaire, Maller Character, Parts I and II; Sweet Personal Attitudes Test for younger boys; Ethical Judgment Test; Maller Test of Sports and Hobbies, Form A-x. The results indicated that delinquents differ from non-delinquents in what they do and how they feel in degree rather than in kind. The value of standardized tests to discover personality symptoms of delinquent tendencies was stressed, as was also the importance of such findings to the psychologist in the diagnosis and adjustment of the individual.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3651. Dexter, E. G. Air "flivvers." *Scient. Mo.*, 1934, 38, 361-366.—Future airplane travel is not likely to rival automobile travel due to the instinctive aversion to leaving terra firma.—*J. F. Dashiell* (North Carolina).

3652. Humm, D. G., & Wadsworth, G. W. The Humm-Wadsworth temperament scale. *Person. J.*,

1934, 12, 314-323.—The standardization of a new scale for the analysis of temperament is described. Based upon Rosanoff's theory of personality, this scale is designed to reveal seven basic components of temperament and the degree to which each is present in a given individual. Analysis indicates that certain components measured by the scale are of more value in some lines of work than in others.—(Courtesy *Person. J.*)

3653. Huth, A. Das Ende der Typologien. (The end of the typologies.) *Indus. Psychotechn.*, 1933, 10, 383-384.—Personality is too complex to permit people to be grouped into discrete types. It is better to determine the position of an individual on the scales for various capacities.—*H. J. P. Schubert* (Buffalo).

3654. Kornhauser, A. W. Personality measurements of good and poor salesmen. *Psychol. Bull.*, 1933, 30, 730-731.—Abstract.—*J. F. Dashiell* (North Carolina).

3655. Levy-Valensi, J. La compensation bovaryca en los ansiosos. (The Bovary compensation in the anxious.) *Rev. crim. psiquiat. y med. leg.*, 1932, 19, 135-151.—Bovaryism, derived from Flaubert's heroine, is applied to man's ability to imagine the unreal. The paranoid constitution is founded on Bovaryism, and mythomania, including hysteria, is directly related. The author cites two cases of anxiety, in which the anxiety led the patient to take refuge in dreams, in compensation for his pathological misery. Bovaryism leads in this way to "delusions of compensation."—(Courtesy *Année psychol.*)

3656. Mallory, E. B. Father's occupation and boarding school education as related to the individual's judgment of values. *Psychol. Bull.*, 1933, 30, 717.—Abstract.—*J. F. Dashiell* (North Carolina).

3657. Mandolini, H. La vanidad morbida. (Morbid vanity.) *Rev. crim. psiquiat. y med. leg.*, 1932, 19, 32-36.—Pride is masculine in the erotic struggle. Physical vanity, even vanity of intelligence, is feminine, and is related always to the desire to be loved. From normal vanity we pass to morbid vanity, that of delinquents, which is a reaction to the feeling of inferiority.—(Courtesy *Année psychol.*)

3658. Mandolini, H. Psicología del genio incompleto. (Psychology of the incomplete genius.) *Rev. crim. psiquiat. y med. leg.*, 1932, 19, 601-608.—The author devotes several pages to the incomplete geniuses who are often only failures, whose type Zola has described in his *Claude Lantier*; geniuses dominated by neuroticism, or lacking an incentive, play the role of a catalyst, or are sterilized by mercantilism or some politico-social factor.—(Courtesy *Année psychol.*)

3659. Meltzer, H. Personality differences between stuttering and non-stuttering children as indicated by the Rorschach test. *Psychol. Bull.*, 1933, 30, 726-727.—Abstract.—*J. F. Dashiell* (North Carolina).

3660. Petrov, P. [Character in professions.] *Psikhotekh. i psikhofiziol. truda*, 1931, 4, 361-368.—

The author arranged a test of 54 postcards on 12 sheets to be examined by small groups of subjects, who noted the numbers of the cards which pleased them, choosing a card on each sheet. Since the secondary function is shown in extroverts of a gay temperament by reactions of intense depression to disagreeable experiences of daily life, they choose black cards, while the introverts, plunged in sadness, manifest the primary function in an impulsive gaiety, and prefer colored cards.—(Courtesy *Année psychol.*)

3661. Pintner, R. Emotional stability of the hard of hearing. *J. Genet. Psychol.*, 1933, 43, 293-311.—Returns on the Bernreuter Inventory were received from 94 hypacoustic individuals living in small towns and rural communities, and from hearing individuals with whom they paired themselves as similar in age, education, and social background. The hard of hearing were found to be more neurotic, introverted, and submissive. No relation was found between neurotic tendency and age at loss of hearing, number of years of deafness, or lip-reading. More undesirable traits were found in this group than in Welles' urban group. Study of personal histories shows that those who are clearly maladjusted have a high neurotic score on the Bernreuter Inventory. The fact of readjustment in so many cases is worth attention.—*J. F. Dashiell* (North Carolina).

3662. Révész, B. Über die Einteilung der psychischen Typen. (The classification of psychological types.) *Arch. f. d. ges. Psychol.*, 1932, 86, 523-532.—Approaching an analysis from the viewpoint of pathology, the writer distinguishes eleven normal types of personality: (1) melancholoid; (2) manoid; (3) cycloid; (4) irritable; (5) equalized; (6) paranoid; (7) hypochondroid; (8) hysteroid; (9) imbeciloid; (10) neurasthenoid; (11) autistoid. A description of these types is given, with distinguished representatives of each. There are persons, however, who do not fit into any one classification, but who represent rather two or three of them. Thirty-three possible combinations of the eleven basic types are given.—*J. J. Carlson* (Aurora-on-Cayuga).

3663. Rich, G. J. Some relationships between personality and body chemistry. *J. Neur. & Psychopath.*, 1933, 14, 132-138.—A review and evaluation of the experimental study of biochemical conditions in relation to personality. Acid-base equilibrium and creatinine production appear to be definitely related with emotional excitability, although the explanatory interpretation is not yet clear. The study of phosphorus content of body fluids has yielded equivocal but provocative results, while no relation between calcium content and personality traits has been found. Bibliography.—*D. G. Marquis* (Yale).

3664. Rubinstein, P. [The problem of the study of types in psychology and in psychotechnics.] *Psikhotekh. i psikhofiziol. truda*, 1931, 4, 337-343.—The transformations effected by the social environment are profound, and biological characters themselves are modified parallel to historic evolution. The facts indicated by Lévy-Bruhl (primitive and civilized mentality) would prove equally well the existence of

psychophysiological transformations imputable to social influences. For the author not only the type but also the biotype is a historic and socio-plastic category.—(Courtesy *Année psychol.*)

3665. Stern, E. Anfänge des Alterns; ein psychologischer Versuch. (The beginning of old age; a psychological investigation.) Leipzig: Thieme, 1931. Pp. 46. RM. 2.—This investigation of the characteristics of old age is based on observation of people, on biography, and on descriptions in literature. The author places the beginning of old age in the fourth decade. The accompanying phenomena are divided into five groups: the experiences of physical age, of time, of environment, the changes in relationships with other people, and the changes in ideals concerned with love and with vocations.—*E. Fehrer* (Bryn Mawr).

[See also abstracts 3539, 3702, 3771, 3818.]

SOCIAL FUNCTIONS OF THE INDIVIDUAL

3666. [Anon.] Autobiography of a suicide. Lawrence, L. I.: Golden Galleon Press, 1934. Pp. 223. \$2.50.—*R. R. Willoughby* (Clark).

3667. Baumann, E. D. Vervrouwelyking bij de primitieven. (Feminization among primitives.) *Mensch en Maatschappij*, 1934, 10, 118-133.—A survey of information from various authors concerning feminization in a number of primitive tribes. It appears that in most cases the disposition to behave like a woman had a sacred origin. The basis of feminization was a mystic tendency of priests to identify themselves with a goddess; with other tribes the shape of a woman was considered to be favored by the spirits. Examples of such customs with primitive tribes, e.g., in Borneo and Celebes, are described. It has been made clear that the origin of this form of feminization is different from that existing in antiquity and in the middle ages, when it consisted in a change of clothes with the aim of leading evil spirits astray. As contrasted with the present-day views, in which social-ethical factors oppose the development of homosexual tendencies, in various primitive societies this tendency was considered to be a proof of a sacred calling. Various stages of feminization in clothes, in behavior, and in sexual desires are described.—*C. Rothe* (Koloniaale Instituut).

3668. Benon, R. Mensonge et simulation. (Lying and simulation.) *Ann. méd. leg.*, 13, 20.—Lying and simulating are never real morbid states, but the author finds it interesting to study them from the psychological point of view in order to compare them with the psychopathological states for which they must not be mistaken. One case is reported.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.).

3669. Bierens de Haan, J. A. Langue humaine, langage animal. (Human speech, animal language.) *Scientia*, 1934, 55, 40-49.—In legend and poetry there are many instances wherein human beings speak to animals. From the scientific point of view, however, in man there can be detected but three

modes of expression, namely, gesture, sound and words, the last of which is the most important as well as the only one which can be called true speech; and while the author points out that animals sometimes use gesture, theirs are never as specific as those of man. Also it is shown that though many animals express themselves by means of sounds, the majority of species must be considered mute, and it is still a moot question whether certain feelings and emotions are communicable even among birds and mammals which are generally considered to be capable of expressing themselves by means of sounds. The present author leans toward the theory that they do, yet he makes it very clear that even in such cases the sounds which they utter are not real speech, and he feels that in their natural state animals have no real language despite the fact that when under training some of them are capable of comprehending human words and (in the case of parrots) of uttering them.—*L. S. Selling* (Institute for Juvenile Research).

3670. Bolton, E. B. Effect of knowledge upon attitudes towards the negro. *Psychol. Bull.*, 1933, 30, 719.—Abstract.—*J. F. Dashiell* (North Carolina).

3671. Bousfield, M. B. The intelligence and school achievement of negro children. *J. Negro Educ.*, 1932, 1, 388-395.—Colored children who had resided at least three years in Chicago were used in this research. The questionnaire evaluating economic and environmental conditions revealed them to be an underprivileged group. The Otis Self-Administering Test of Mental Ability, the Pintner Non-Language and the McCall Multi-Mental Scale were given them. In addition the New Stanford Reading and Arithmetic Achievement Tests were administered. On the non-language tests the group tested normal. On the McCall, which required vocabulary knowledge, but did not require reading knowledge to the extent of the Otis, 68% of the cases fell between 36.8 and 53.5, i.e., from nearly 14 points below to 3.3 above the norm. On the Otis test the group median was 87.15, with a standard deviation of 12.82. The correlations between Otis and arithmetic and Pintner and arithmetic were low. Correlations of Otis and Pintner with age were negative. Reading and arithmetic correlations with age were low. When age was partialled out of correlations between Otis and reading, Otis and arithmetic, Pintner and reading, and Pintner and arithmetic, the partial correlations were higher than the total ones. Age was a definite but not a powerful factor.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3672. Burrow, T. Crime and the social reaction of right and wrong: a study in clinical sociology. *J. Crim. Law & Crimin.*, 1933, 24, 685-699.—The prevalent ideas of "right" and "wrong" are not fixed, but vary with social and economic inter-relationships. "Indeed it is not too harsh to say that the reason people cherish above all things this external symbol or formulation called morality is because it is of all things the most readily alterable according to each individual's private right or gain." The community on the one hand, and the criminal on the other, both

react according to their standards of right. This study in somewhat altered form is part of a larger thesis, *The Structure of Crime*, which will appear later in book form.—*L. Ackerson* (Institute of Juvenile Research).

3673. Carrara, M. Il delinquente per passione nel nuovo Codice Penale Italiano. (The delinquent from passion in the new Italian penal code.) *Arch. antrop. crim. psichiat. e med. leg.*, 1933, 53, 3-23.—The author ascertains that the new penal code, while not introducing a delinquent from passion among the other anthropological types of delinquents, and even denying to passion states any mitigating influence upon imputability, nevertheless takes into account the passion psychological elements among the various individual motives for the crime. In homicide and personal injury inflicted from wounded honor a typical passion crime is recognized and therefore punished with a smaller penalty. This shows plainly the intention of the new code to punish more mildly a crime less dangerous and prompted by a condonable motive.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

3674. Chadwick, J. E. Predicting success in sight-singing. *J. Appl. Psychol.*, 1933, 17, 671-674.—A multiple correlation of .84 was obtained between scores on "a very objective performance test" of sight-singing and scores on the Seashore music tests, a college achievement test and the American Council Psychological Examination. A regression equation is developed through the use of the path coefficient technique for determining the relative influence of the three variables in predicting success in sight-singing. "In determining probable success in music, musical talent tests are about two and one-half times as indicative as intelligence tests, and twenty-five times as effective as tests of general knowledge of school subjects."—*R. S. Schultz* (Psychological Corporation).

3675. Czywo-Dabrowski, W. Le nouveau Code Pénal polonais—remarques d'un médecin légiste. (The new Polish penal code. Remarks by a forensic physician.) *Arch. di antrop. crim. psichiat. e med. leg.*, 1933, 53, 24-37.—Comments on various articles in the code, which are quoted and discussed.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

3676. Davis, R. C., & Smith, H. S. Determinants of feeling tone in type faces. *J. Appl. Psychol.*, 1933, 17, 742-764.—Extreme size, condensation, boldness, family style and italics are most forceful factors in type for expressing feeling tone, in the order indicated. The selection of a product or feeling to fit the type face is found to be the most justifiable method psychologically and statistically. Tables are presented to show the characteristics of type best suited to 23 products and 24 feelings (courtesy, beauty, etc.).—*R. S. Schultz* (Psychological Corporation).

3677. Dirr, H. Sprachgebrechen, Schrift und Intelligenz. (Speech defects, writing and intelligence.) *Zsch. f. Kinderforsch.*, 1933, 41, 338-348.—The character and the quality of a child's handwriting reveal his intelligence and the nature of his speech

defects. Remedial training not only improves the handwriting but has beneficial effects upon the personality of the child.—*K. C. Pratt* (Michigan Central State Teachers College).

3678. **Dunlap, K.** *Civilized life: the principles and applications of social psychology.* Baltimore: Williams & Wilkins, 1934. Pp. 374. \$4.00.—The present volume is a revision of the author's *Social Psychology* (1925). The chapter on "The basis of social psychology" has been rewritten; and new chapters on "Desire," "Races and civilization," and "The child as a member of the group" have been added. The author's point of view may be stated as follows: "Each individual is a member of a group, and usually of several groups. His life as an individual is largely determined by this group membership. His life is a continuing response to the other members of his groups, as well as to the various non-human objects making up his environment." In working out this point of view, Dunlap places great stress on the desires which are composed of anticipatory thinking and *appels*. Desires are classified under nine headings: alimentary, excretory, protective, activity, rest, amorous, parental, preeminence, and conformity; and emphasis is placed on the amorous and genital processes as factors in individual and social life. Other chapters of the book deal with sex differences, marriage and the family, religion, political organization, social progress and eugenics, principles of social function, and propaganda.—*W. S. Hunter* (Clark).

3679. **Eells, W. C.** *Educational achievement of the native races of Alaska.* *J. Appl. Psychol.*, 1933, 17, 646-670.—On the basis of the Stanford Achievement Test norms 48% of the entire group are retarded a half grade or more and only 12% are accelerated. In general, when compared with the white norms for the separate subjects in the Stanford Achievement Test, best achievement is in spelling, history, geography, and physiology, and somewhat poorer achievement in language usage, English literature, arithmetic reasoning, arithmetic computation, paragraph meaning and word meaning. Quality of handwriting is markedly below the white norms, while speed of handwriting approximates these closely, as measured by the Ayres Handwriting Scale. Originality of expression and ability to write ordinary English prose was evaluated by the Driggs-Mayhew National Scales for Measuring Composition. Aleut children were on the average close to the white norms and in some grades above these norms, and superior to Eskimo and Indian children. Children in boarding schools where the English language was in constant use were better in this test of English composition than those in the day schools. In musical achievement as measured by the Kwalwasser-Ruch Test of Musical Accomplishment the Alaskan children were decidedly inferior.—*R. S. Schultz* (Psychological Corporation).

3680. **Elliott, M. A., & Merrill, F. E.** *Social disorganization.* New York: Harper, 1934. Pp. 842. \$3.50.—*R. R. Willoughby* (Clark).

3681. **Eurich, A. C.** *Fourth- and fifth-grade standards for photographic eye-movement records.* *J. Genet. Psychol.*, 1933, 43, 466-471.—With three paragraphs of reading matter the eye movements of the children in three classrooms were measured, with a found reliability coefficient of above .90. Norms to be established throughout a wide range of grades should be of diagnostic value.—*J. F. Dashiell* (North Carolina).

3682. **Farnsworth, P. R.** *Studies in the psychology of tone and music.* *Genet. Psychol. Monog.*, 1934, 15, 1-94.—The monograph contains a number of studies in the psychology of tone and music. Chapter headings include the following: musical talent and the left hand; possible social factor in esthetic ratings; noise, dissonance, and pleasure; cross rhythms; dyad preferences in terms of sigma units; the player piano as an aid in teaching; the Lipps-Meyer law; the Seashore and Kwalwasser batteries; Kwalwasser-Dykema tests; etc. 49 references are appended.—*F. M. Teagarden* (Pittsburgh).

3683. **Freytag, W.** *Das Sittlich-Gute und seine Transzendenz.* (Moral good and its transcendence.) *Arch. f. d. ges. Psychol.*, 1932, 86, 79-114.—The author seeks logically to define ethical concepts as having developed naturally out of the psychological and historical facts of their use. What we know of prehistoric man is explicable only if we attribute to the human mind a transcendence beyond the mere sensual experiences of the moment. From prehistoric times down to the present the basic mental and ethical pattern remains the same.—*J. J. Carlson* (Aurora-on-Cayuga).

3684. **Gilliland, A. R., & Eberhart, J. C.** *The association test as a measure of delinquency.* *J. Crim. Law & Criminol.*, 1933, 24, 736-747.—A study was made of the diagnostic effectiveness of H. R. Laslett's word-association test for delinquent attitudes. Four groups of differing degrees of delinquency were chosen in the Chicago area: (1) 208 boys committed to the state industrial school at St. Charles, (2) 112 boys who have been transferred to the Montefiore School (a public school in Chicago set aside for "incorrigibles" and "truants"), (3) 93 boys attending a public school in a Chicago area of medium delinquency rate, and (4) 133 boys from a junior high school in an area of very low delinquency rate. The differences in scores among groups 2, 3, and 4 were negligible, but the scores of group 1 were very significant, being 5 to 7 times their standard error. In general, the present workers did not obtain the clear-cut differentiation formerly reported by Laslett. They conjecture that there may be considerable differences in vocabulary of delinquents in different parts of the country, which may interfere with the comparability of the results.—*L. Ackerson* (Institute for Juvenile Research).

3685. **Gray, W. S.** *Summary of reading investigations.* (July 1, 1932 to June 30, 1933.) *J. Educ. Res.*, 1934, 27, 564-591.—Summary of reading investigations discussed in topics which range from vocabulary studies to literary appreciation. An-

notated bibliography of 94 titles.—S. W. Fernberger (Pennsylvania).

3686. Greene, E. B. The legibility of typewritten material. *J. Appl. Psychol.*, 1933, 17, 713-728.—The Michigan Speed of Reading Tests I and II were administered to 1950 college students. Results indicate no reliable differences in accuracy of reading 7, 10, 12 and 14 point type. "There was an unmeasured tendency for the smaller sizes to be held a little closer to the eyes." There was a tendency toward more rapid reading of the leaded samples than of the solid. This was more noticeable in the longer line than in the shorter line. An 80 mm. line seemed to be read faster than a 176 mm. line.—R. S. Schults (Psychological Corporation).

3687. Hamilton, J. Zur Sprachbeeinflussung in anderssprachiger Umgebung. (Linguistic changes in foreign surroundings.) *Sociologus*, 1933, 9, 427-439.—The author traces the progressive changes in the native language of an immigrant group settling in a foreign country. It is shown that foreign words and expressions are gradually adopted in increasing numbers, whereas the syntax of the native language, which is deeply rooted, tends to resist change. Instead, new foreign expressions are apt to be changed in accordance with the syntax of the native language.—E. Fehrer (Bryn Mawr).

3688. Hellpach, W. Standort und Wesensart. (Locality and mannerisms.) *Indus. Psychotechn.*, 1933, 10, 290-297.—Each industrial metropolis has built up customs and traditions of its own. It exerts a greater influence upon newcomers than they do on it. Such conditions afford excellent opportunity for the study of the influence of surroundings upon mannerisms.—H. J. P. Schubert (Buffalo).

3689. Heuyer, G., & Dublineau, J. Le "vol genereux." (Generous theft.) *Ann. méd. leg.*, n. d., 12, 638.—Under the designation of "generous theft" is described a particular form of theft, indulged in by children or youths who, instead of keeping the stolen goods, distribute them among friends with generosity and ostentation, which contrasts with their habitual timidity.—R. E. Schwarz (V. A. Facility, Northport, N. Y.).

3690. Hudson, A. Reading achievements, interests and habits of negro women. *J. Negro Educ.*, 1932, 1, 367-373.—125 negro women in three occupational groups (housewives, domestic servants and miscellaneous) were given the Gray oral reading paragraphs and the Monroe silent reading tests. Two thirds of them equalled or exceeded the eighth grade norms in oral reading. The coefficients of correlation between rate and comprehension in silent reading were positive. All three groups preferred love stories. Negro literature ranked second in popularity among the miscellaneous group and the housewives. Of the total number of books read, love stories and negro literature comprised 62%. An interest in a title and the fact that a friend recommended the book were the two most frequently mentioned motives influencing book reading. Most of these women read newspapers. Of the magazines, some of the better class ranked

highest. The *True Story Magazine* was read extensively, but mostly by the domestic group. There was a decrease in amount read with decrease in reading achievement. The influence of school training was greater in oral reading than in silent reading. As participation in social affairs decreased, the amount of reading increased.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.).

3691. Jastak, J. Interferences in reading. *Psychol. Bull.*, 1934, 31, 244-272.—Studies in special reading disabilities fall into three groups according to their approach: the educational psychologists', the clinicians', and the laboratory experts'. Here 171 titles are reviewed under the general headings: A, symptoms, B, etiological explanations, and C, remedial treatment.—J. F. Dashiell (North Carolina).

3692. Knower, F. H. An experimental study of the effect of argument on changes of attitude. *Psychol. Bull.*, 1933, 30, 718.—Abstract.—J. F. Dashiell (North Carolina).

3693. Knox, E. O. The negro as a subject of university research in 1933. *J. Negro Educ.*, 1934, 3, 223-244.—Topics incident to the negro were used in 122 research studies reported for 1933. This is an increase of 69% over the number reported for 1932. The following classifications have been considered in this study: (1) the racial character of the universities, i.e. all negro, all white, or mixed negro and white enrollments; (2) the racial identity of the authors, whether negro, white, or unknown; (3) the geographic distribution of the institutions which accepted these studies; and finally, a classification of the studies in terms of masters' theses and doctors' dissertations by universities and states. There are included in this report abstracts of the 17 doctors' dissertations. The studies are critically evaluated and the problems are classified according to whether the subject matter embraces financial support, administrative control, teaching personnel, curriculum, miscellaneous professional studies, or studies of general educational nature, as historical, sociological, literature, and music.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.).

3694. Lawes, L. E. Economics of parole. *Med. Rec.*, 1934, 139, 333.—A problem facing New York is whether its parole laws should be made more flexible or whether more millions of dollars must be spent for the construction of new prison buildings and the maintenance of men in prisons. The former alternative is recommended by this author because he believes that an extensive parole system is the most economically sound and socially beneficent deterrent to criminality. New York maintains very complete psychiatric and psychological staffs capable of making very accurate classifications, who have proved themselves admirably fitted to determine which prisoners may be expected to succeed on parole. Classification clinics composed of all prison departmental heads assist in this work, and, of over 8000 prisoners examined, more than 60% have been found fitted for early parole. In 1932, New York saved \$3,340,068 in maintenance alone as a result of its parole system.

This figure is based on the fact that 8,600 persons were on parole during that year, at a cost of \$46.91 each, whereas they would have cost the state \$435.19 each to keep them within walls. 28 states, as well as the national government and more than 20 foreign countries, have proved the efficacy and economic value of parole.—*L. S. Selling* (Institute for Juvenile Research).

3695. Lendrum, F. C. A thousand cases of attempted suicide. *Amer. J. Psychiat.*, 1933, 13, 479-500.—The author discusses sex, age, race, marital state, religion, employment, time of attempt, serology, motives, psychiatric diagnosis, methods employed, and outcome of the case in a thousand cases of attempted suicide in Detroit.—*N. Goldman* (Boston Psychopathic Hospital).

3696. Leonov, N. I. Shkolnik severnoi tuzemnoi shkoly. (School children of northern native nationalities.) *Probl. nats. pedol.*, 1, 132-162.—The author gives a sketch-portrait of the northern school children. The northern pupil is too serious for his age, a professional earner (hunter, deer-breeder, fisherman) dwarfish in height, a weakling, though enduring being forced to wash himself every day and eating strange food, strained, longing for his home, the herds, and his own trade, self-loving, susceptible, hot-brained, even nervous, always on guard, greedy for new knowledge, impressionable, a good drawer, a utilitarian (as regards the school), good economist and a useful man for society.—*B. N. Vishnevski* (Leningrad).

3697. Lewis, N. D. C. Studies on suicide. *Psychoanal. Rev.*, 1934, 21, 146-153.—This is the second of a series of articles intended to elaborate on the general relationships of suicide to other biological phenomena. If every biological activity is in some way adaptive or an attempt at adaptation, pathological processes must be included. Suicide comes under the category of profound pathological situations in which the regressive parts totally destroy the adaptive, and this translated into psychiatric terms indicates that those who commit suicide are in a pathological mental state of the dimensions of a psychosis, though there are numerous arguments to the contrary. There is included a lengthy discussion of hara-kiri, or seppuku. Suicide, constituting a total rupture in the adjustment to environment, calls for a more painstaking study through psychoanalysis directed toward more bioanalytic fields.—*L. S. Selling* (Institute for Juvenile Research).

3698. Lichtenstein, P. M. A doctor studies crime. New York: Van Nostrand, 1934. Pp. 263. \$3.00.—This book seeks to supply the answers to the questions: "Why do people commit crimes?" and "What makes a criminal?" by voicing opinions based upon many years' actual contact with criminals of every description. Sensational cases which have made recent American crime history are cited, and consideration is given such factors in crime as narcotic addiction, mental and moral deficiency, environment, and poverty. The palpable inadequacy of present methods of dealing with crime is severely criticized,

and numerous suggestions are made for the betterment of these methods. Probation, parole, and more efficient court procedure, particularly, are recommended, and the closing chapters are given to a more or less detailed description of court procedure and penal conditions in New York state, with a number of suggested improvements, which seem to have as their chief objective the rendering of places of detention less vulnerable to smuggling.—*L. S. Selling* (Institute for Juvenile Research).

3699. Long, H. H. The intelligence of colored elementary pupils in Washington, D. C. *J. Negro Educ.*, 1934, 3, 205-222.—This study has for its aim the determination of the average IQ of negro children in Washington by grade cross-sections of the school population, as well as determining the relation between IQ and number of years a child has resided in Washington. The effect of the socio-economic factor upon the IQ is stressed. As the negro child becomes older the IQ decreases. It drops about three points between the fifth and sixth grades. The author found that the average IQ varied only slightly after eight and a half years of residence. It is pointed out that the influence of the Washington environment is rather marked, inasmuch as there is a general tendency for IQ to decrease with age. The average IQ of colored elementary pupils born in Washington is only 4.76 points below that of the average white elementary pupil. The author concludes that this difference is to be accounted for by other than native factors.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.).

3700. Lord, J. R. The human factor in international relations. *Ment. Hygiene*, 1934, 18, 177-188.—Inasmuch as mental hygiene is concerned with all the human causes of war, the writer holds that "in the mental hygiene movement will be found the remedy for war." Two slogans have been advanced as useful in a mental-hygiene peace program: "To learn to think internationally," and "the necessity to disarm the mind."—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.).

3701. Luithlen, W. F. Zur Psychologie der Initiative und der Führereigenschaften. (On the psychology of initiative and the characteristics of the leader.) Leipzig: Barth, 1931. Pp. 122.—Henning's work, done at the Institut für Psychologie in Danzig, establishes three basic factors of the leader's personality; (1) initiative as the characterological, (2) ambition as the sociological, and (3) vitality as the biological factor. It is planned to study especially and give an expert opinion upon the basic characteristics of leader personalities. Luithlen's study has gained the attention especially of men in the industrial world.—*H. J. P. Schubert* (Buffalo).

3702. Maller, J. B., & Lundeen, G. E. Superstition and emotional maladjustment. *J. Educ. Res.*, 1934, 27, 592-617.—Three types of test, (1) a list of 50 prevalent superstitious ideas, (2) a battery of tests for the measurement of emotional adjustment, and (3) a test of irrational associations, were given to 289 children in the New York schools and to 77 pupils in

the Clarkstown, N. Y., schools, all seventh-grade children. The reliabilities of the tests are determined. It was found that the scores in superstitious belief correlated positively with those in emotional maladjustment and with the scores in irrational associations. The number of fears and worries bears a positive relationship to both superstition and emotional maladjustment. Samples of the tests are given. Bibliography of 37 titles.—S. W. Fernberger (Pennsylvania).

3703. **Marinresco, G., & Kreindler, A.** *Sprache, Aphasie und bedingte Reflexe.* (Language, aphasia and conditioned reflexes.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1933, 145, 127-163.—An analysis of the ontogenetic development of language convinces the writers that language is acquired through the mechanism of the conditioned reflex (c.r.). Phylogenetic development of animals' sign-language, gestures and cries follows the same laws. The cortical mechanism of language follows the principles of inner inhibition and reciprocal induction. Language is a series of conditioned chain-reflexes. Aphasia is a result of losing c.r.'s of higher order, those of lower order being preserved. Furthermore, there is a disturbance in such cases in the cortical dynamics of the speech centers. Bibliography.—C. W. Fox (Rochester).

3704. **Mazzoni, O.** *Intorno all'arte della lettura.* (On the art of reading.) *Scuola e cultura*, 1933, 9, 196-205.—Expressive reading can make the work of the teacher both effective and lasting. To learn to read means to submit oneself to a rigorous spiritual and mental discipline in order to perceive things in the fashion indicated by the words of the book and thus to understand fully the field of human experience portrayed by means of poetry and literature. The author is against the use of gestures, a subject which she has already treated in *The Art of Reading*. She also gives certain suggestions and rules on reading in the school, with the end in view of developing in the student an important human accomplishment, viz., the art of communication.—V. D'Agostino (Turin).

3705. **Melton, A. W.** *Some behavior characteristics of museum visitors.* *Psychol. Bull.*, 1933, 30, 720-721.—Abstract.—J. F. Dashiell (North Carolina).

3706. **Myerson, A.** *Social psychology.* New York: Prentice-Hall, 1934. Pp. xv + 640. \$3.50.—The two theses upon which this book has been developed are (1) that the visceral-organic structure of man is basic to the understanding of psychology; and (2) that apart from his group a man is a mere potentiality. Part I of the volume deals with general social psychology, in which the following are discussed: some general environmental forces; the flow of the environment through the organism; the nature-versus-nurture controversy; gregariousness, animal and human; social psychology of the nervous system; general aspects of maturation, instinct, emotion, and mood; certain basic activities and their social psychology; social psychology of intelligence; social learning and teaching processes; group interactions; social and individual struggle; communication and

language. Part II, on visceral social psychology, deals with social psychology and the gastro-intestinal tract; some miscellaneous visceral functions and social psychology; and social psychology of the sexual functions (the last in four chapters). Part III deals with the family (two chapters). Part IV deals with misdoing (crime). Each chapter is followed by a bibliography.—O. L. Harvey (Research Division, State Prison Colony, Norfolk, Mass.)

3707. **Myerson, A.** *Social psychiatric aspects of the minor delinquent.* *Amer. J. Psychiat.*, 1933, 13, 501-517.—The author points out that the definition of crime is social and depends upon the moral attitude of a community, which may differ from time to time. Crime is by no means identical with social damage, and is quite often conditioned and brought into being by the law-abiding, normal citizen. A human desire, declared illegal, does not cease to exist; the demands for its satisfaction create an illegitimate supply. Myerson believes that the psychiatrist can help explain the conduct of certain of the criminals; criminality among individuals who are not insane or feeble-minded can be better explained by the sociologist or psychologist. The results of the many investigations of the amount of feeble-mindedness in crime have shown such extravagant differences as almost to nullify their value. "What I can, I think, safely say is that the prisoner who is brought to jail for the minor crimes is of low-grade mentality, with a sprinkling of those who may be technically declared to be feeble-minded. It is safe to say that they come from low cultural levels, from the strata of the population which are poor, have few advantages, live in delinquency areas in slums, have for some reason or other acquired poor training economically, etc." The author is inclined to believe that outside of a certain percentage of the murderers and some of the low-grade vagrants and tramps there is little real psychopathy among criminals. A group of 825 individuals sentenced for two years or less were examined by the author at the Dedham House of Correction. "Looking over their life-history, as it unfolds itself from their earliest days onward through their school career into their industrial history, as it shows itself in the nature of their pleasures, their sexual activities, their social interests, it becomes apparent that there is little organization, no energetic building up of definite and solid purposes; that their qualities remain unevolved, so to speak. I therefore labelled this group the unorganized extroverts, and believe this classification carries with it some degree of understanding and a hint at therapeutics." The author is unable to say whether this lack of organization is fundamental or accidental; the lack of introversion, however, he feels to be constitutional and fundamental.—N. Goldman (Boston Psychopathic Hospital).

3708. **Ogburn, W. F.** *Trends in social science.* *Science*, 1934, 79, 257-262.—A discussion of a few of the changes which have taken place in the social sciences in the past third of a century. The author points out the reasons for the trend toward greater

differentiation and expansion, an increase in research on contemporary problems, a lessened variety in method, and a difference in techniques.—*M. G. Willoughby* (Clark).

3709. **Parker, V. H.** The influence of sex in family life. *Ment. Hygiene*, 1934, 18, 263-278.—The writer stresses the need of husband and wife having a premarital understanding of what is involved in their partnership. They should be taught the importance of preparing the child for a life that will make sex an important and dignified part of life, instead of training him to consider sex as something shameful.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3710. **Patrizi, M. L.** Nell'estetica e nella scienza. *Saggi della terza serie* (1925-1932). (Esthetics and science. Third group of essays, 1925-1932.) Bologna: Zanichelli, 1933. Pp. 301.—As in the two preceding series (Palermo 1899 and Recanati 1922), Patrizi has collected his lectures and addresses on various subjects, and by treating them from the physiological point of view he has provided contributions to the study of the higher mental processes, such as attention, appreciation, and representation. Moreover, he has analyzed such celebrated men as Golgi, Spallanzani, and Murri in science; as Leopardi in literature; and as Giotto and Lotto in the arts; his purpose is to establish the characteristics of these particular kinds of genius. The author also reports his many experiments; for example, the direct measurement of nervous fatigue, the establishment of the curve of mental fatigue (mnemogram), and the determination and physiological measurement of emotion and passion. He enunciates certain new principles in his chapter on "The feeling and genius of architecture from the physiologist's viewpoint."—*V. D'Agostino* (Turin).

3711. **Peters, C. C.** The relation of motion pictures to standards of morality. *School & Soc.*, 1934, 39, 414-415.—326 bits of conduct, such as might be encountered in life, were assigned a value on a moral scale. Descriptions of the conduct incidents were then presented to the members of 18 different social groups, who expressed their approval or disapproval. The proportions of each of the populations sanctioning the behavior described in each item were determined. Committees composed of 5 members each rated the episodes in 184 motion pictures on the basis of the conduct scales, thus making possible an analysis of the frequency distributions of various deportment types set forth in the movies in relation to the moral level of the conduct tending to receive the endorsement of the social groups. With respect to the aggressiveness of girls in love-making and the matter of kissing the typical movie patterns tended to fall below the level of the mores of the populations studied; whereas in the matter of democratic practices as well as the treatment of children by parents the conduct types most frequently presented in the cinema tended to be above the moral level of those which appear to receive the sanction of a considerable number of the group members. Bad conduct is often associated in the movies with unattractive roles, but not con-

sistently so. A negative correlation has been revealed between the success of films and their degree of offense against morality.—*H. L. Koch* (Chicago).

3712. **Petrov, F. P.** *Intellektualnoe razvitiye chuvashskogo rebenka.* (Intellectual development of the Chuvash child.) *Probl. nats. pedol.*, 1, 253-260.—1398 children (755 ♂ and 643 ♀) have been tested by the individual Binet test in the author's translation. The intellectual level of Chuvash children is determined to a large extent by the economic conditions of the family. The children of materially poorly provided parents stand behind the children of families which live in better economic conditions in their mental growth; therefore measures should be taken by social organizations to support the poorest students economically.—*B. N. Vishnevski* (Leningrad).

3713. **Pogolotti, R.** *Configurazioni criminali con carattere psicopatico.* (Criminal types of a psychopathic nature.) *Arch. di antrop. crim. psichiat. e med. leg.*, 1933, 53, 726-749.—In this thesis, presented for the degree of doctor of laws, the author deals with the relation between crime and insanity, with sexual psychopathology as a cause of crimes against public morals and against persons, with the futility of motives in relation to the mental condition, with vagabondage, with pyromania, with kleptomania, and with practical applications of his entire thesis.—*R. E. Schwarz* (V. A. Facility, Northport, N. Y.)

3714. **Reckless, W. C., & Bringen, H. L.** Racial attitudes and information about the negro. *J. Negro Educ.*, 1933, 2, 128-138.—246 white college students were studied to determine what part non-partisan information about the negro played in determining racial attitudes. The attitude indicator used was made up of 40 statements from Charles S. Johnson's questionnaire on racial opinions of white college students. The information test consisted of 40 questions dealing with facts about negro history, occupation, cultural development, etc. The results indicate that low attitude scores accompany low information scores and that high scores on one test accompany high scores on the other.—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.)

3715. **Ruckmick, C. A.** Affective responses to the motion-picture situation by means of the galvanic technique. *Psychol. Bull.*, 1933, 30, 712-713.—Abstract.—*J. F. Dashiell* (North Carolina).

3716. **Saffir, M. A.** Nationality preferences for varying types of social relation. *Psychol. Bull.*, 1933, 30, 717-718.—Abstract.—*J. F. Dashiell* (North Carolina).

3717. **Sammartano, N.** *Idee e problemi della rivoluzione fascista.* (The ideals and problems of the Fascist revolution.) Florence: Vallecchi, 1932. Pp. 169.—The author treats mainly of the relations between politics and culture. The central problem of the school, that is to say, the search for educational methods which most nearly approach our ideals, is identical with the problem of man himself: in the school the student should learn to live and seek to understand his life as that of the mind and the intelli-

gence. Fascism has given a new form to the problem of culture, which has not only its material aspects but also its spiritual aspects. The term culture as amended according to the Mussolinian conception signifies a light which, coming from the mind, strengthens character, unifies consciousness, and regulates life as a whole.—V. D'Agostino (Turin).

3718. Schmidt-Japing, —. Über die sogenannte "religionspsychologischen Zirkel." (The so-called "religious-psychological circle.") *Arch. f. d. ges. Psychol.*, 1932, 86, 221-230.—The method of the religious-psychological circle may be defined as follows: Beginning with a personal religious experience, to interpret the spiritual life of others, and by clarifying one's view of the specifically religious, to return to the observation of one's own religious consciousness; by broadening and intensifying this reciprocal progress in the understanding of religious life in its various forms of expression, to derive the specific religious motives of the whole historical complex of religious life as clearly as possible. It involves a scientific and theological evaluation of a general basic experience, the so-called idealistic experience of truth and reality. It presupposes a general basic intuition of truth. This "idealistic *Urphänomen*" has been shattered by the philosophy of the present time, and along with it the religious-psychological circle has received a blow. In fact the entire question concerning the relationship between theology and philosophy has assumed a new aspect.—J. J. Carlson (Aurora-on-Cayuga).

3719. Schultze, E. Sklaven- und Dienersprachen (sogen. Handelssprachen): ein Beitrag zur Sprach- und Wanderungs-Soziologie. (Slave and servant languages [so-called trade languages]: a contribution to the sociology of language and migration.) *Sociologus*, 1933, 9, 377-418.—The author, in investigating the origin of such auxiliary languages as lingua franca, pidgin English, and Chinook, has drawn the conclusion that these are not trade languages, but the languages of slaves and servants, originating during the time Europeans were engaged in slave trading. They are all characterized by an extreme simplicity of syntax and grammar. This simplicity is attributed to two decisive facts: (1) the very incomplete knowledge of the foreign language on the part of the natives, and (2) the intentionally exaggerated childish manner which the whites think it necessary to employ when speaking with natives. These languages are discussed as an important problem in the sociology of language and migration.—E. Fehrer (Bryn Mawr).

3720. Seashore, R. H. The measurement and analysis of extent of vocabulary. *Psychol. Bull.*, 1933, 30, 709-710.—Abstract.—J. F. Dashiell (North Carolina).

3721. Seth, G. An experimental study of the control of the mechanism of speech, and in particular of that of respiration, in stuttering subjects. *Brit. J. Psychol.*, 1934, 24, 375-388.—Stuttering speakers were markedly inferior to normals in their ability to control voluntarily the rhythm and regularity of respiration when they were not speaking, just as they were

inferior in control of the speech mechanism. Their inferiority in voluntary control of the lips and jaws was less marked. Thus respiratory disturbance was not a function of social situations involving speech.—M. D. Vernon (Cambridge, England).

3722. Shores, L. A comparison of the reading interests of negro and white college students. *J. Negro Educ.*, 1933, 2, 460-465.—The author sought to learn what effect race has on non-fiction reading interests. The white group studied was composed of students from Chicago University. The colored group was from Fisk University. The results indicate that sex is a more important factor affecting differences in non-fiction reading interests than is race. There was a correlation of $.816 \pm .02$ between non-fiction interests of men of Fisk and Chicago Universities, and a correlation of $.817 \pm .02$ between the women of these universities. The greater importance of the sex factor over the race factor is further stressed by a comparison of actual topics preferred and avoided by Fisk and Chicago groups. Out of 117 topics, only one was ranked as much as 5 deciles apart by the men, and only five by the women, while there were twelve topics in which Fisk men and women disagreed. Among this number five were ranked from 6 to 8 deciles apart. The slight differences appearing between Fisk and Chicago students may be due to several minor factors. However, it is suggested that many a topic avoided by the Fisk group might be preferred if it had a negro aspect.—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.).

3723. Simpson, R. M. Summary of studies in crime at Illinois State Penitentiary. *Psychol. Bull.*, 1933, 30, 729.—Abstract.—J. F. Dashiell (North Carolina).

3724. Störing, G. Beziehungen zwischen Psychologie und philosophischer Ethik. (Relations between psychology and philosophical ethics.) *Arch. f. d. ges. Psychol.*, 1932, 86, 3-22.—The relationships which exist between psychology and philosophical ethics are explained.—J. J. Carlson (Aurora-on-Cayuga).

3725. Sward, K. Jewish musicality in America. *J. Appl. Psychol.*, 1933, 17, 675-712.—A study of musical attainment of Jewish adults; results with children, based on the Seashore musical tests, Kwalwasser-Dykema tests, and Drake musical memory test; and a historical and theoretical interpretation of data yield the conclusions that follow: (1) "Jewish incidence among 'American' musicians exceeds expectancy. (2) Roughly 50 per cent of the violin virtuosi, and the maestros and first violinists of American symphony orchestras are of Jewish origin. One-quarter to one-half of the piano virtuosi and of all symphonic and amusement instrumentalists are Jewish. Ten per cent of 'American' composers are of Jewish extraction. (3) Comparable Jewish ($N = 200$) and non-Jewish ($N = 300$) children aged 10-11 years are equally endowed in basic musical tracts. . . . (4) Historic social forces have stimulated Jewish musicality intensely."—R. S. Schultz (Psychological Corporation).

3726. Sward, K. Jewish musicality. *Psychol. Bull.*, 1933, 30, 716.—Abstract.—J. F. Dashiell (North Carolina).

3727. Thyssen, J. Über eine fundamentale Beziehung zwischen Psychologie und Ethik. (A fundamental relationship between psychology and ethics.) *Arch. f. d. ges. Psychol.*, 1932, 86, 231-246.—There is indeed a fundamental relationship between psychology and ethics, but within the scope of the "psychological" determination of facts there are two essentially different steps from which "ethically pre-formed" ways of conduct are derived: (1) that of empirical psychology; (2) that of the philosophical evaluation of the structure of the observed facts. It is the latter which presents directly to philosophical ethics the kinds of human conduct so pre-investigated that the philosopher can assign the value-predicate "good" to one group of these kinds of behavior.—J. J. Carlson (Aurora-on-Cayuga).

3728. Többen, H. Untersuchungsergebnisse an Totschlägern. (Experimental results concerning murderers.) Berlin: Heymann, 1932. Pp. 114. RM. 7.00.—In this investigation forty murderers have been classified according to the motives for their crimes. Each case has been carefully analyzed. The crime, the events leading up to it, and its sequels have been studied and the criminal has been subjected to a thorough medical and psychological examination. On the bases of these analyses two types of murderers have been distinguished, one in which the crime is the result of passion and the other in which it is an unemotional, carefully planned and reasoned act.—E. Fehrer (Bryn Mawr).

3729. Travis, L. E., & Malamud, W. The relationship between physical habitus and stuttering. *Psychol. Bull.*, 1933, 30, 726.—Abstract.—J. F. Dashiell (North Carolina).

3730. Tullio, P. Considerazioni ed esperimenti sulla scrittura e sulla lettura e sul modo di insegnarle. (Considerations and experiments on writing, reading, and the methods of teaching them.) *Riv. ped.*, 1933, 26, 669-706.—According to the author the letters of the alphabet are not an artificial invention of man. They are a natural phenomenon, an evolution of reflex movements which are aroused by sound and which direct the eye toward the sound and its location. The author has observed head, eye, and beak movements of pigeons to auditory phenomena (vowels and consonants) and the movements which follow such fundamental graphic forms as lines, ellipses, circles, parabolas, and figure eights. The author believes that the fundamental writing movements should be taught to children in some automatic way demanding a minimum of intellectual effort. Reading is less automatic and demands a longer period of training. The author presents the details of his pedagogical experiments.—R. Calabresi (Rome).

3731. Vervaeck, L. Deux années d'application de la loi de défense sociale à l'égard des anormaux et des récidivistes. (Two years of application of the law of social defense against abnormal individuals and recidivists.) *Arch. di antrop. crim. psichiat. e med.*

leg., 1933, 53, 436-458.—The author expounds the conditions under which the Belgian law of social defense of April 9, 1930, was carried out and the results attained during the first two years of its application. He also shows the direction along which improvements in this revolutionary legal regime are to be looked for.—R. E. Schwarz (V. A. Facility, Northport, N. Y.)

3732. Warner, S. B. Crime and criminal statistics in Boston. (Harvard Law School Survey of Crime in Boston, Vol. 2.) Cambridge, Mass.: Harvard Univ. Press, 1934. Pp. 160. \$3.00.—R. R. Willoughby (Clark).

3733. Wheeler, L. R., & Wheeler, V. D. The musical ability of mountain children as measured by the Seashore test of musical talent. *J. Genet. Psychol.*, 1933, 43, 352-376.—Results on this test with 456 mountain children of eastern Tennessee in grades V to VIII were compared with those published by other investigators from other parts of the country on white adults, grade VIII beginning music pupils and non-musicians, grade V to VIII pupils in advanced schools, negro children, Indian children, etc. Taken all in all, the results with these mountain children compare favorably.—J. F. Dashiell (North Carolina).

3734. White, R. K. The measurement of scientific creativeness. *Psychol. Bull.*, 1933, 30, 715-716.—Abstract.—J. F. Dashiell (North Carolina).

3735. Wolfe, D. L. The rôle of generalization in language. *Brit. J. Psychol.*, 1934, 24, 434-444.—The fundamental psychological process of generalization is shown in the following linguistic processes: (1) Sound symbolism: the widespread use of a given sound in words with a similar size reference. (2) Word meaning: a generalization of all the slightly different meanings given to a word by different members of the community. (3) Analogic change: this is more easily explained on the basis of generalization than by the purposive and "ease" theories.—M. D. Vernon (Cambridge, England).

[See also abstracts 3386, 3446, 3476, 3524, 3543, 3544, 3546, 3585, 3586, 3593, 3625, 3632, 3633, 3650, 3656, 3659, 3748, 3760, 3767, 3770, 3778, 3798, 3804, 3826, 3834, 3835, 3837, 3847, 3850, 3855, 3861, 3865.]

INDUSTRIAL AND PERSONNEL PROBLEMS

3736. [Anon.] Psychotechnische Lehrlingsprüfung bei den Schweizerischen Bundesbahnen. (Psychotechnical examination of apprentices for the Swiss railroads.) *Indus. Psychotechn.*, 1933, 10, 342-349.—On the basis of the results on 300 railroad apprentices, it is shown that the discrepancy between the classification on the basis of psychological tests and instructors' judgments is small. The instructors' rankings tend to be higher than the psychologists'. Individual cases are cited to show what specific differences occur and some of the reasons for them. The conclusion is reached that the combination of a medical and psychological examination makes for the

selection of a good personnel.—*H. J. P. Schubert* (Buffalo).

3737. Arndt, W. *Psychologie der Besuchskarte*. (The psychology of the business card.) *Indus. Psychotechn.*, 1933, 10, 314-316.—The appearance and information on a business card are discussed.—*H. J. P. Schubert* (Buffalo).

3738. Arndt, W. *Der Ingenieur als Werbefachmann*. (The engineer as contact expert.) *Indus. Psychotechn.*, 1933, 10, 370-372.—The engineer is in a position to supervise advertising and propaganda programs.—*H. J. P. Schubert* (Buffalo).

3739. Bills, M. A. Rate of promotion of clerical forces. *Psychol. Bull.*, 1933, 30, 731-732.—Abstract.—*J. F. Dashiell* (North Carolina).

3740. Bingham, W. V. Abilities and occupational opportunities. *Psychol. Bull.*, 1933, 30, 732.—Abstract.—*J. F. Dashiell* (North Carolina).

3741. Brugger, H. *Zur Psychologie der "Schrecksekunde"*. (On the psychology of the "moment of startle.") *Indus. Psychotechn.*, 1933, 10, 350-351.—A study is to be made of the effect of startle on the automobile driving of beginners and of practiced drivers.—*H. J. P. Schubert* (Buffalo).

3742. Cimatti, L. *Il disegno tecnico nell' educazione professionale dei ciechi*. (Technical drawing in the professional education of the blind.) *Riv. ped.*, 1933, 26, 714-734.—*R. Calabresi* (Rome).

3743. Clague, E., Couper, W. J., & Bakke, E. W. *After the shutdown*. New Haven, Conn.: Institute of Human Relations, Yale Univ., 1934. Pp. 153. \$2.00.—*R. R. Willoughby* (Clark).

3744. Dubreuil, H. *The human factor in industry*. *Human Factor*, 1934, 7, 146-152.—The author contends that many of the industrial troubles of to-day are due to the impossibility of the worker's feeling any personal interest in, or responsibility for, his work.—*M. Horsey* (National Institute of Industrial Psychology).

3745. Frankford, A. A. Intelligence tests in nursing. *Human Factor*, 1932, 6, 451-453.—The author compared the results of the Industrial Institute's intelligence test given to 50 nurses from a large London hospital with the examination results of the same nurses after 2 months' training in the school of that hospital. The correspondence between the test scores and the subsequent examination performance suggests that the intelligence test employed in these cases would prove useful as an aid in the selection of nurses.—(Courtesy *Année psychol.*)

3746. Grauer, D. Abilities, attitudes and success. *Person. J.*, 1934, 12, 328-333.—The abilities, attitudes, and work adjustment of fifteen women employed in a shop for the handicapped were studied by tests, interviews, supervisors' ratings, records of hourly wage rate, and social case histories. The results are presented in the form of rank order correlation coefficients and case studies. The highest correlation found, .67, was between wages and an average of four psychological tests. There was a correlation of .42 between wages and attitudes revealed during

the interview and examination. Interviews and case studies of the workers gave some understanding of personality tendencies and suggested plausible explanations of disparities between test scores and wages.—(Courtesy *Person. J.*)

3747. Halford, —. *Industrial psychology in agriculture*. *Human Factor*, 1932, 6, 358-368.—Within the last few years there has evolved, particularly in Germany, a science of agriculture based on mechanical and psychophysiological principles. The aim of this science, which is known in Germany as *Landarbeitslehre*, is to improve labor conditions by means of critical and systematic investigations into the methods of achieving a maximum output with a minimum expenditure of energy. The author describes, with many concrete illustrations, the results achieved by means of this new system at the agricultural research station of Pommritz in Saxony.—(Courtesy *Année psychol.*)

3748. Hall, O. M. Attitudes of employed and unemployed men. *Psychol. Bull.*, 1933, 30, 732-733.—Abstract.—*J. F. Dashiell* (North Carolina).

3749. Hofmann, W. A. *Aufgaben einer Werkzeugzeitung*. (Obligations of a trade paper.) *Indus. Psychotechn.*, 1933, 10, 333-334.—The six main obligations of a trade paper are given. Means of discharging them are suggested.—*H. J. P. Schubert* (Buffalo).

3750. Hölzermann, E. F. *Stanzen oder Bohren*. (Punching as contrasted with drilling [rivet holes].) *Indus. Psychotechn.*, 1933, 10, 301-304.—It is shown that in making rivet holes for torpedo tube guard plates, drilling with the latest improved machinery is more efficient than punching.—*H. J. P. Schubert* (Buffalo).

3751. Hölzke, H. *Gymnasial- oder Realbildung für technische Berufe*. (Classical or technical training for technical callings.) *Indus. Psychotechn.*, 1933, 10, 376-377.—The suggestion is made that an intermediate school be established to teach the fundamentals necessary for a technical training. Individuals showing capabilities for more advanced training would more quickly enter into productive work and so find greater motivation in their training period.—*H. J. P. Schubert* (Buffalo).

3752. Jamin, E. *Berufsberatung und Eignungsprüfung in der Maschinenindustrie*. (Occupational guidance and testing in the mechanical industries.) *Indus. Psychotechn.*, 1933, 10, 373-376.—The use of tests in an industrial guidance program is strongly recommended. Suggested tests for the mechanical trades are spatial relations, dexterity, and cutaneous sensitivity. Supplementing these there should be available the school record, a medical examination, and character references.—*H. J. P. Schubert* (Buffalo).

3753. Kinter, M. *Enquête sur un groupe des petits Parisiens; leur idées sur le bien et le mal; leur réactions de coopération et d'altruisme*. (Study of a group of Parisian children; their ideas of right and wrong; their reactions in situations involving

cooperation and altruism.) Paris: L. Rodstein, 1933. Pp. 161.—The Pintner non-language test, Maller's character sketches, C. E. I. opinion ballot, and Maller's class self test were given to 52 boys and 51 girls ranging in age from 9 to 13 years. Results of this investigation agree with those obtained by the Character Education Inquiry in the U. S. in showing the specificity of character traits. French children when compared with American children appear to be less emotionally stable and to have less capacity for cooperation. In altruism and moral knowledge French children are superior to American children. Within the group of French children, boys are more emotionally stable, more cooperative, more altruistic, and better judges of right and wrong than girls, but girls seem to judge consequences of acts better than boys. A French translation of Maller's character sketches and the opinion ballot are appended.—R. S. Schultz (Psychological Corporation).

3754. Kriebel, A. C. *The psychology of success.* Chester, Pa.: Author, 1934. Pp. 58. \$1.00.—R. R. Willoughby (Clark).

3755. Lenkner, H. *Die psychologischen Grundlagen der Fortbewegung des Menschen in der Zweidimensionalen unter besonderer Berücksichtigung der Verkehrstechnik (das Drall-Problem).* (The psychological bases of human progression in two-dimensional space, with particular consideration of traffic techniques: the congestion problem.) Würzburg: Triltsch, 1934. Pp. 83. RM. 3.—R. R. Willoughby (Clark).

3756. Lester, A. M. *A note on memorability in advertising.* *Human Factor*, 1934, 7, 131-135.—Investigations carried out by the National Institute of Industrial Psychology throw doubt on the commonly held view that the most easily remembered advertisements are the most effective. The tendency to purchase a product was found to be more closely connected with memory of the name of that product than with memory of particular advertisements of it. From the manufacturer's point of view, it is more important that the public should associate the name of his brand with the name of the commodity in general (e.g. "Lux" with "soap") than that they should associate the name of the product with advertisements which they have seen.—M. Horsey (National Institute of Industrial Psychology).

3757. Maier, E. *Arbeitstechnische Bestgestaltung der Skalen.* (Determining the best form of scale markings.) *Indus. Psychotechn.*, 1933, 10, 353-362.—A study was made of various sizes and lengths of lines and fineness of divisions used on various scales. Accurate and speedy reading of a scale depends on the relation of the lengths of the division lines and the distance between them. The length should be a fraction of the distance between the lines.—H. J. P. Schubert (Buffalo).

3758. Medrow, W. *Beobachtungstechnik.* (Interview techniques.) *Indus. Psychotechn.*, 1933, 10, 327-332.—To supplement the results of performance tests, much valuable information may be obtained from general and systematic observation of indi-

viduals under specific conditions. The personality traits of the individual must be appraised. A systematic outline is suggested.—H. J. P. Schubert (Buffalo).

3759. Miner, J. B. *An example of selection of firemen and policemen.* *Psychol. Bull.*, 1933, 30, 731.—Abstract.—J. F. Dashiell (North Carolina).

3760. Nuber, H. *Berufswahl und Berufsethos.* (Choice of a career and professional ethics.) *Indus. Psychotechn.*, 1933, 10, 380-381.—An individual should not only possess the requisite abilities for an occupation, but should also be acquainted with and in sympathy with the ethics of the group.—H. J. P. Schubert (Buffalo).

3761. Oakley, C. A. *The industrial misfit.* *Human Factor*, 1934, 7, 123-130.—A popular discussion of the chief psychological causes of industrial maladjustment.—M. Horsey (National Institute of Industrial Psychology).

3762. Ponzio, M. *Capacità lavorative e loro educabilità.* (Vocational capacities and their training.) *Riv. di psicol.*, 1933, 29, 223-248.—The author discusses the results of a series of tests, tasks of visual and tactual discrimination as well as motor coordination, of pupils in an industrial school. He lays particular emphasis on the problem of measuring not only the psychotechnical skill in a quantitative manner but also various qualitative aspects of an individual's performance, his basic attitudes, his variability on different occasions, and his capacity for improvement.—T. M. Abel (Sarah Lawrence).

3763. Rauber, R. *Werbepsychologische Untersuchung des Markenartikelnamens.* (Investigation on the sales psychology of trade names.) Zürich: Author, 1933. Pp. 8. Swiss fr. 0.60.—R. R. Willoughby (Clark).

3764. Rüter, H. *Arbeitseignungstafel für die Praxis.* (A chart showing workers' job abilities.) *Indus. Psychotechn.*, 1933, 10, 325-327.—The author describes a system of classifying and indicating the abilities of workers for various jobs. Such an index would be used by the foreman to know which men to put on a specific job, and by the employment office to be guided as to the nature of jobs for which new employees were needed.—H. J. P. Schubert (Buffalo).

3765. Sartorius, H. *Trainungsverfahren für Zeitnehmer bei Handzeitstudien.* (Training of time-keepers.) *Psychotechn. Zsch.*, 1933, 8, 188.—Groups of three to five men were given from two to seven practice sittings of two hours in stopping an automatically moving band or a sounding buzzer. The purpose of this training procedure was to discover whether it is true that a person can reach only about 5% accuracy in keeping time (according to Bedaus), or whether the degree of accuracy can be increased by systematic training. It was found that the discrepancy between the time signal and the actual stopping of the buzzer or the moving band decreased quickly during the first practice period. The subjects had already reached an average efficiency of about 5% at the first practice period, and this attainment

changed very little through subsequent practice. However, prolonged training tends to decrease the variability of performance. Although, on an average, a person may not become more accurate in keeping time, his variability gradually decreases, so that his work becomes more even.—*C. Burri* (Chicago).

3766. *Schramm, W. Betriebswirtschaft und Betriebswirtschaftler.* (Industrial management and the industrial manager.) *Indus. Psychotechn.*, 1933, 10, 305-309.—The engineer and the business man must work hand in hand to bring about efficient management of industry. It is often useful to have advice from an outside consultant.—*H. J. P. Schubert* (Buffalo).

3767. *Strierner, A. Gemeinschaftssinn im Betriebe.* (Feeling of companionship in industry.) *Indus. Psychotechn.*, 1933, 10, 298-301.—In the interest of the new national socialistic order, it is the duty of all to forward the conditions leading to greater cooperation among industrial groups.—*H. J. P. Schubert* (Buffalo).

3768. *Strierner, A. Mitarbeit durch Verbesserungsvorschläge.* (Cooperation through suggestions of improvements.) *Indus. Psychotechn.*, 1933, 10, 363-366.—Executives can readily improve the operation of their departments by taking into consideration the suggestions of any and all employees. The latter should be encouraged to hand in such suggestions.—*H. J. P. Schubert* (Buffalo).

3769. *Strong, E. K., Jr. Classification of occupations by interests.* *Person. J.*, 1934, 12, 301-313.—Occupations may be classified into five major groups on the basis of the interests of men in those occupations. It is possible that age, general intelligence, and femininity-masculinity are three of the five factors responsible for occupational interests. As men grow older their interests become more like the interests of men in certain occupations and less like those of men in other occupations. Scores in occupational interests are affected by age.—(Courtesy *Person. J.*)

3770. *Uhrbrock, R. S. Measuring attitudes of 4,500 factory workers.* *Psychol. Bull.*, 1933, 30, 733-734.—Abstract.—*J. F. Dashiell* (North Carolina).

3771. *Walter, L. Über Berufsberatung für höhere Berufe und ihre psychologische Grundlagen.* (Vocational guidance for higher vocations and its psychological bases.) *Psychotechn. Zsch.*, 1933, 8, 169-177.—Three of the major factors in determining one's success in the higher vocations or professions are discussed here. Superior general intelligence seems to be the fundamental to them all; then comes a specific intellectual attitude, which may be called mental orientation. For example, Oswald's romantic or classic types are intellectual attitudes which force one to decide for one rather than for another profession. Finally, the affective attitude is another factor which definitely influences our choice and success. The fundamental psychological make-up should be given proper consideration in vocational guidance.—*C. Burri* (Chicago).

3772. *Wegner, K. Lehrlingshaltung in Industriebetrieben.* (The place of the apprentice in industrial management.) *Indus. Psychotechn.*, 1933, 10, 366-369.—In the interests of society and industry, careful attention should be given to the selection of apprentices for the hand trades. A variety of tests of physical condition are suggested, the choice of the one to be used depending on facilities available. The use of school performance and job aptitude tests is also recommended. Industry and labor should work hand in hand.—*H. J. P. Schubert* (Buffalo).

3773. *Weisz, F. Psychotechnik im Betriebe.* (Psychotechnology in industry.) *Indus. Psychotechn.*, 1933, 10, 339-341.—Stress is laid on the importance of the human factor in industry. Job analyses are needed. Workers should be selected on the basis of tests for the requisite ability. The new worker should be given a definite course of training. The best working conditions are needed. Such a procedure will lead to the greatest over-all efficiency.—*H. J. P. Schubert* (Buffalo).

[See also abstracts 3398, 3457, 3470, 3471, 3616, 3654, 3791, 3793, 3795, 3804, 3842, 3852.]

EDUCATIONAL PSYCHOLOGY

3774. *Almack, J. C., & Staffelbach, E. H. Spelling diagnosis and remedial teaching.* *Elem. School J.*, 1934, 34, 341-350.—With few exceptions, public school pupils have sufficient general ability to learn to spell. Therefore, when a disability or difficulty arises, diagnostic and remedial measures should be employed. The elements of a remedial program are outlined, and five studies are presented to illustrate typical defects and spelling errors; one study contains an outline for "connecting typical causes of disability with proposals for their remedy."—*P. A. Witty* (Northwestern).

3775. *Anderson, H. H. Character education or mental hygiene—which shall it be?* *Ment. Hygiene*, 1934, 18, 254-262.—Socialization and personality interpretation are essential in a school's program. Character education programs can contribute to this. However, there has as yet been no way of adapting mental-hygiene case work technique to group methods. The writer predicts that "when the teaching staff has well integrated personalities and when parental education has improved the child's environment and when the school has a child specialist on its staff, no one will be concerned with character education or mental hygiene."—*H. S. Clapp* (Children's Village, Dobbs Ferry, N. Y.).

3776. *Brueckner, L. J., & Hawkinson, M. J. The optimum order of arrangement of items in a diagnostic test.* *Elem. School J.*, 1934, 34, 351-357.—From the results of this study and those of a former investigation the writers are led to recommend that "diagnostic tests suitable for individual diagnosis [in algebra] should consist of at least four examples of each type [of function] and that the examples of each type, because of the greater ease in scoring and analysis, should be arranged together in one row." Arranging the examples in random order was found to complicate the scoring and to add nothing to the diagnostic value of the test.—*P. A. Witty* (Northwestern).

3777. Carr, J. W., Jr. The relationships between the theories of Gestalt psychology and those of a progressive science of education. *J. Educ. Psychol.*, 1934, 25, 192-202.—The writer points out "a number of parallels between a philosophy of education and the theories of Gestalt psychology. These theories seem to offer an experimental basis for some of the educational practice which is no longer new. Without neglecting the contributions of other schools of psychology, teachers should investigate the findings and theories of Gestalt. It is probable that the educational psychology of the future will find much of value in this point of view."—J. A. McGeech (Missouri).

3778. Cherrington, B. M. Methods of education in international attitudes. *Teach. Coll. Contrib. Educ.*, 1934, No. 595. Pp. 134.—R. R. Willoughby (Clark).

3779. Coxe, W. W. Frontier issues of educational research. *J. Educ. Res.*, 1934, 27, 561-563.—Educational theory has advanced unevenly, with the result that our practice is a peculiar blend of scientific findings and conventionalism. The reason is that the emphasis has been placed on determining facts rather than upon testing hypotheses. The author asks that the emphasis of future research be upon the formulation of hypotheses, which should then be tested experimentally.—S. W. Fernberger (Pennsylvania).

3780. Fay, P. J. The effect of knowledge of grades on subsequent achievement of college students. *Psychol. Bull.*, 1933, 30, 710.—Abstract.—J. F. Dashiell (North Carolina).

3781. Foster, G. R. Social change in relation to curricular development in collegiate education for women. Waterville, Me.: Author, 1934. Pp. 216. \$2.00.—R. R. Willoughby (Clark).

3782. Guiler, W. S. Improving instruction in English mechanics in the elementary school. *Elem. School J.*, 1934, 34, 427-437.—A number of recent school surveys reveal a high frequency of errors in English usage. The following remedial measures are therefore suggested: (1) definite goals in language instruction; (2) the allocation of specific objectives to appropriate grades; (3) flexible teaching techniques; (4) the use of functional rather than "make-believe" situations; (5) the development of many specific skills because of the insignificant transfer of training from one usage to another; (6) the motivation of pupils to use good English at all times; (7) individualized instruction; and (8) definite and orderly remedial instruction. 26 studies (of which 15 are by the writer) are cited.—P. A. Witty (Northwestern).

3783. Harris, D. Are personnel data really useful? *Person. J.*, 1934, 12, 341-344.—Scholastic grades, mental ability, age, hours of study, and other data about a very homogeneous group of college freshmen were intercorrelated. Most of the relationships were found to be negligible, which fact leads the author to doubt the value of gathering such information. The slightly higher correlations found by previous investigators are probably spurious due to heterogeneity of groups. More critical gathering and treatment of

personnel data and the use of more homogeneous samples are recommended.—(Courtesy *Person. J.*)

3784. Hildreth, G. H., & Griffiths, M. A. Metropolitan readiness tests for kindergarten and grade 1. Yonkers: World Book, 1933. With manual of directions, key, and class record sheet.—A test to determine the extent to which pupils are ready to learn first-grade skills and to provide an analysis of difficulties revealed. The six tests include pictured situations to study reactions to similarities, copying-situations, vocabulary content, sentence comprehension, elementary number concepts, and range of information.—L. A. Averill (Worcester State Teachers College).

3785. Honnacker, A. Freiheitsprinzip und Arbeitsunterricht. (The principle of freedom and instruction in learning by self-activity.) *Arch. f. d. ges. Psychol.*, 1932, 86, 23-32.—Education through self-activity and its significance for the free development of the will are discussed. This type of education (*Arbeitsunterricht*) is defined as having two aspects: special instruction in practical handcraft; and the cultivation of self-activity on the part of the pupil. Analyzing the processes involved in an act of will, the author indicates how this type of education may enrich and develop the child's imaginative life and thus lay the foundation for free development of his potentialities. To this basis the intellectual factor will later be added. Such an education safeguards against mere intellectualism and one-sided development divorced from education of the will and the emotions. Thus the personality is rounded out and the way paved for true freedom of development.—J. J. Carlson (Aurora-on-Cayuga).

3786. Hotz, H. G., & Trice, J. A. The relation of an abnormal weekly schedule to grade point average. *School & Soc.*, 1934, 39, 422-424.—The purpose of the study was to ascertain whether there tended to be any relationship between the size of the course load a student carried and his grade point average. 300 students, selected at random from those entering the University of Arkansas in 1927 and 1928, were the subjects of the investigation. Students who either decreased or increased their load in a given semester tended to increase their grade point average more than did those who carried a constant course burden. In the case of each of the four intelligence-test quartile groups a low positive correlation was discovered between number of courses carried and grade point average.—H. L. Koch (Chicago).

3787. Hurd, A. W. How may present-day educational practice be improved? *School & Soc.*, 1934, 39, 442-444.—From the publications of 56 authorities in the field of education the author gleaned 102 representative statements concerning how educational practice may be improved. This list of statements was submitted to experienced teachers and graduate students, of whom 154 responded, indicating not only their agreement or disagreement with each statement, but also which pronouncements seemed ambiguous. Of the items in the list 43 received the endorsement of 80% of the respondents, who represented rather varied academic interests. The popular

statements emphasized the desirability of a close tie-up between formal education and life activities; and the philosophy that education is the development of the mind, of insight, and of a rational attitude toward personal and world problems.—*H. L. Koch* (Chicago).

3788. Judd, C. H. Education. *Amer. J. Sociol.*, 1934, 39, 800-808.—Schools and colleges are seriously affected by the depression. A number of types of federal relief have been provided which have to some extent improved the situation. In certain communities constructive measures have been adopted to advise and instruct unemployed adults. The proposal is made that secondary and higher education be largely or wholly supported by tuitions. Schools have a marked increase in attendance as a result of the operation of the industrial codes. The increase may be made permanent through an amendment to the Constitution of the United States. The regional standardizing associations are preparing to adopt new kinds of standards. The Federal Board for Vocational Education is absorbed into the United States Office of Education.—(Courtesy *Amer. J. Sociol.*)

3789. Knauer, A. Der normative Aspekt in der pädagogischen Psychologie. (The normative aspect in educational psychology.) Schramberg: Gatzert & Hahn, 1933. Pp. 65.—*R. R. Willoughby* (Clark).

3790. Lee, J. M., & Symonds, P. M. New type or objective tests: a summary of recent investigations (October, 1931–October, 1933). *J. Educ. Psychol.*, 1934, 25, 161-184.—The investigations reviewed are grouped under the following major topics: summaries of previous investigations; teaching values of new-type tests; comparative validities; comparative reliabilities; scoring methods; special problems peculiar to the true-false test; students' attitude toward testing; new types of tests; popularity of objective tests; trends in testing; miscellaneous problems; and important discussion references. Bibliography of 104 titles.—*J. A. McGeoch* (Missouri).

3791. Lorge, I., & Metcalfe, Z. F. The prediction of some measures of vocational adjustment on the basis of tests given eight years before and of the same tests given two years after the fact predicted. *J. Educ. Psychol.*, 1934, 25, 220-224.—The Thorndike-McCall reading scale, I.E.R. reading scale, Stenquist assembly test, and I.E.R. general clerical test were given in 1921-1922 to boys aged 12 to 15, and were repeated in 1932-1933. It is concluded that "the tests at age 14.0 and at age 24.0 make for equally poor prediction of measures of vocational success at age 20.0 to 22.0. Even if the tests were perfect measures of the abilities sampled and even if the measures of vocational success were perfect, the relationship existing between tests and criteria are so low that no vocational counselor could have foretold how much money a boy would earn at age 20.0 to 22.0 or how happy he would be on his job at those ages."—*J. A. McGeoch* (Missouri).

3792. McNemar, Q. The expected average difference between individuals paired at random. *J. Genet. Psychol.*, 1933, 43, 438-439.—Two proofs are

offered that the theoretically expected average difference between individuals paired at random is $2\sigma/\sqrt{\pi}$.—*J. F. Dashiell* (North Carolina).

3793. Messer, W. J. Some school problems for industrial psychology. *Human Factor*, 1932, 6, 294-298.—In connection with the National Industrial Institute's current work for the National Union of Teachers, the author points out that the methods of industrial psychology might profitably be applied to the study of fatigue in schools, and to the optimal work and rest periods for children and teachers.—(Courtesy *Année psychol.*)

3794. Monnin, J. Correlations entre les classements d'écoliers d'après un test d'intelligence et d'après le travail scolaire. (Correlations between rankings of pupils according to an intelligence test and according to scholastic work.) *Année psychol.*, 1932, 1, 51-56.—Monnin used the rank-difference method in determining the coefficients of correlation between intelligence-test scores and scores on (1) an arithmetic test, (2) other tests prepared by the teacher. Correlations found were as follows: the arithmetic test and the intelligence test, $.56 \pm .07$; intelligence test and teachers' tests $.54 \pm .07$; arithmetic test and teachers' tests, $.59 \pm .07$. He concludes by quoting Binet, "The intellectual faculty and the scholastic faculty are independent, but they are not contradictory; they develop in the same manner."—*E. F. Kemp* (Clark).

3795. Neger, O. Gymnasial- oder Realbildung für technische Berufe. (Classical compared with technical training for technical callings.) *Indus. Psychotechn.*, 1933, 10, 310-313.—Technical students should be given more general training. Foreign languages should be taught so that the student can use them. Study of ancient languages sharpens the intellect.—*H. J. P. Schubert* (Buffalo).

3796. Neubauer, E. Schule und Beruf im Urteil der Maturanten. (School interests a factor in vocational guidance for college graduates.) *Psychotechn. Zsch.*, 1933, 8, 161-169.—Since the problem of vocational selection becomes more and more serious in our life, it is attempted in this article to bring to light some of the factors which influence a person's choice of vocation. The author shows particularly how one's likes and dislikes in school subjects may predispose him for a particular vocation. Such intellectual attitudes may be used as a guide in vocational selection and guidance. For example, students who like languages, natural history, or social studies would be fitted for different types of work from students with a liking for mathematics, physics, or other exact sciences. Again, a person who is interested in rules and the acquisition of facts would not be very successful in art or philosophy, while the dreamer and idealist might thrive in those fields.—*C. Burri* (Chicago).

3797. Quercy, P. Classement d'écoliers par les maitres, par les tests, par le hasard. Comparaison de résultats. Concordances et désaccords. (Ranking of pupils by teachers, by tests, and by chance. Comparison of results. Agreements and disagreements.)

Année psychol., 1932, 1, 20-50.—In this study pupils of four primary grades of the public schools at Rennes were ranked according to chronological age, mental age (as determined by the Peryay-Vaucluse test), teachers' judgments, and chance (alphabetically). Agreements and disagreements between rankings are presented in a series of tables.—E. F. Kemp (Clark).

3798. Schliebe, G. *Gescheiterte Schüler höherer Schulen*. (Baffled pupils in high schools.) *Zsch. f. Jugendk.*, 1934, 1, 34-41.—The psychological institute established in Giessen in 1929 to follow up cases tested individually offers valuable free service to parents, who come to it without prejudice because of its unofficial character. Many young people come there who have had difficulty in school, having had to repeat grades until they are 2-3 years older than the others in the class. They are not lazy or morally delinquent or behavior problems. Usually they are only sons or at any rate have sisters and no brothers. They appear to be well-developed modest youths, made diffident and uncertain of themselves by their experiences at school and home, and frequently they are reduced to tears by the discussion of their problems. As a rule they come from minor office-holding families in small towns. The mother, from whose side the wealth comes, is the real head of the family. The father's calling is not esteemed. The mother wishes the boy to have a white-collar job, and to her ambition the whole situation is due. The task of the advisor is to convince the parents of their error, and this is best done by giving tests in which the boy is seen to do well in certain situations involving manual dexterity and practical thinking, while in other tests he fails. When it is realized that it is useless to strive for an unattainable goal, but that there is ability in other lines to be utilized, the youth is allowed to study a trade and is almost always successful and happy. Three illustrative cases are described.—M. Lee (Chicago).

3799. Schmidberger, G. *Über Geschlechtsunterschiede in der Rechenbegabung*. (On the differences between the sexes in aptitude for calculation.) *Zsch. f. päd. Psychol.*, 1932, 33, 70-85; 104-165.—In a study, consisting of 4 series of problems, made on 2,284 pupils from the third to the eighth grade, the total numbers of problems solved show no significant difference between the sexes, from the point of view of central tendencies or dispersion. But if the problems are classified according to difficulty, the average percentage of success (weighted according to the difficulty of each problem) is found to be 51%, 52.4%, and 65% respectively for the boys, and 49%, 46.4%, and 34.4% for the girls. The superiority of the boys is apparent for the most difficult problems.—(Courtesy *Année psychol.*)

3800. Smeltzer, C. H. *Objective measurement of applied information*. *J. Appl. Psychol.*, 1933, 17, 765-771.—The paper reports the development of a method of weighting and scoring items in a test of 20 teaching problems involving judgment as to the suitability of each of 5 answers to a problem. Correlations ranging from $.59 \pm .06$ to $.67 \pm .05$ were obtained between scores on these judgment problems

and scores on an information test of 200 multiple-choice items. Intelligence-test percentile scores correlate $.23 \pm .10$ to $.31 \pm .09$ with scores on the judgment problems, and around $.51 \pm .08$ with scores on the multiple-choice questions. It is suggested that the evaluation in an objective manner of the ability to apply information to the solution of specific problems will provide a means of predicting more accurately the probable success of students preparing for such vocations as teaching, medicine and law.—R. S. Schultz (Psychological Corporation).

3801. Straub, W. *Die Grundlagen einer experimentellen Bildungspsychologie*. (The foundations of an experimental educational psychology.) Langensalza: Beyer, 1931. 104 S.—In this monograph the author has attempted to lay the theoretical foundation of an educational psychology upon which he promises later to erect a superstructure dealing with the content-material of the educational concepts. The fundamental problem was to find a basis for experimental educational psychology which would be valid alike for act psychology and the psychology of drives and impulses. This was found in the research methods of the functionalists. The material of the monograph is divided into two parts. The first deals with the tasks and problems of an educational psychology; the second with the significance of modern psychology for an experimental educational psychology. In connection with this section reference is made to 116 articles by German and Austrian scholars; the works of English, American and French authors are not referred to.—E. Fehrer (Bryn Mawr).

3802. Tilton, J. W. *The feasibility of ability grouping*. *Psychol. Bull.*, 1933, 30, 710.—Abstract.—J. F. Dashiell (North Carolina).

3803. Tuttle, H. S. *A social basis of education*. New York: Crowell, 1934. \$3.00.—R. R. Willoughby (Clark).

3804. Umstattd, J. G. *Supply and demand of college teachers*. Minneapolis: Univ. Minnesota Press, 1934. Pp. 41. \$0.50.—Questionnaires were sent to 400 institutions and received from 184, representing somewhat less than a fifth of the nation's total. Under *Supply* are considered degrees granted, staff reductions, salaries, and unplaced doctors and registrants. Under *Demand* are treated appointments and calls, contacting, selection factors, and supply-demand comparisons by fields.—R. R. Willoughby (Clark).

3805. Votaw, D. F. *Notes on validation of test items by comparison of widely spaced groups*. *J. Educ. Psychol.*, 1934, 25, 185-191.—It is argued that "in determining if a true-false or a multiple-choice test item is selective of 'good' students the comparison of superior students with inferior students should be made on the basis of the proportions of the two groups who know the answer to the item and not on the basis of the proportions answering the item correctly." A new method is proposed which takes account of the fact that superior students may be "tricked" into making incorrect responses to an item. The new plan reduces the tendency of scores

to "bunch" at the zero end of the scale.—J. A. McGeoch (Missouri).

3806. Williamson, E. G. University of Minnesota Testing Bureau. *Person. J.*, 1934, 12, 345-355.—The University Testing Bureau is a recently established administrative device for the collection of data necessary for counseling students having vocational and educational problems. The unique contribution of the bureau to vocational orientation is its use of psychological tests and methods in the diagnosis of vocational and educational possibilities of individual students. This method supplements the traditional diagnosis by interviews, work experiences and vocational information.—(Courtesy *Person. J.*)

[See also abstracts 3393, 3405, 3561, 3566, 3633, 3646, 3656, 3679, 3681, 3685, 3730, 3742, 3751, 3829, 3837, 3840, 3845, 3865.]

BIOMETRY AND STATISTICS

3807. Burks, B. S. A statistical method for estimating the distribution of sizes of completed fraternities in a population represented by a random sampling of individuals. *J. Amer. Stat. Asso.*, 1933, 28, 388-394.—(Courtesy *Bibliographia Eugenica*).

3808. Douglass, H. R. Some observations and data on certain methods of measuring the predictive significance of the Pearson product-moment coefficient of correlation. *J. Educ. Psychol.*, 1934, 25, 225-231.—The major issue discussed is the common use of the predictive efficiency index to give a value referred to as the "per cent of improvement over sheer guess." The limitations of this method and interpretation are shown both logically and empirically. Other common errors in using and interpreting coefficients of correlation are briefly stated.—J. A. McGeoch (Missouri).

3809. Hogben, L. Limits of applicability of correlation technique in human genetics. *J. Genet.*, 1933, 27, 379-406.—(Courtesy *Bibliographia Eugenica*).

3810. McNish, A. G. Principles of statistical analysis occasionally overlooked. *J. Franklin Inst.*, 1933, 215, 697-703.—(*Biol. Abst.* VIII: 7762).

3811. Pauli, R., & Wenzl, A. Ein einfachstes Verfahren zur Berechnung korrelativer Zusammenhänge. (A simple procedure to compute correlational associations.) *Zsch. f. päd. Psychol.*, 1934, 35, 113-120.—Guided by the desire to find a correlation coefficient which features all the characteristics of traditional indices, but is far simpler in computation, the authors suggest the following formula: $r = uQ_o - lQ_o / uQ_o + lQ_o$, in which r stands for the correlation coefficient, u and l for upper and lower value, o and a for observed series and arranged series, Q for either the median or the arithmetic average of the upper or lower half of the cases in the series. The values in the y series are ranked from low to high according to the values of the x series; this yields for y the values uQ_o and lQ_o . Then the upper and lower 50% of the y values, as they are originally associated with the x values, are ranked within each half, which yields uQ_a and lQ_a . The division of the two differences yields the coefficient. As long as Q 's are truly repre-

sentative values the formula gives a fairly good estimate of correlational conditions. The coefficient approximates Spearman's ρ , but like ρ it is larger than Pearson's product-moment r .—W. Reitz (Chicago).

3812. Remmers, H. H. A generalized attitude scaling technique. *Psychol. Bull.*, 1933, 30, 719-720.—Abstract.—J. F. Dashiell (North Carolina).

3813. Rulon, P. J. The standard error of the difference between end-score means of matched groups. *Psychol. Bull.*, 1933, 30, 710-711.—Abstract.—J. F. Dashiell (North Carolina).

3814. Spearman, C. The battle between "intuitionists" and "psychometrists." *Brit. J. Psychol.*, 1934, 24, 403-407.—This paper is designed to repel the attacks of the German so-called "intuitionist" school, particularly the Gestalt school, upon the so-called "psychometrists." The correlational statistics of the latter are devised for dealing with multi-dimensional, not merely with uni-dimensional, variables. Certain limitations of the statistical method are acknowledged, but it is held to be of fundamental importance for the verification of hypotheses.—M. D. Vernon (Cambridge, England).

3815. Tryon, R. C. "The factor theory and its troubles": misrepresentation of a criticism of the theory. *J. Educ. Psychol.*, 1934, 25, 232-233.—Specific citations are given to show that Spearman (*J. Educ. Psychol.*, 1933, 24, 591-601) has misrepresented Tryon's criticism (*Psychol. Rev.*, 1932, 39, 324-351; 403-439) of the factor theory.—J. A. McGeoch (Missouri).

3816. Walker, H. M. Mathematics essential for elementary statistics. New York: Holt, 1934. Pp. xiii + 246. \$1.50.—This is a small review book in two parts and 21 chapters, each organized with a pre-test, text, exercise, and post-test, to facilitate self-instruction. The material covered extends from significant figures and order of arithmetical operations, through simple algebra, graphs, logarithms, etc., to correlation, fitting of straight lines, and the normal curve. There is an answer key and an index.—R. R. Willoughby (Clark).

[See also abstract 3409.]

MENTAL TESTS

3817. Bikchentai, — & Karimova, —. Intellektualnyi uroven moskovskikh tatarskikh shkolnikov po kolektivnomu Bine. (Intellectual level of Moscow Tartar school children tested by the collective Binet test.) *Probl. nats. pedol.*, 1, 56-73.—The 2nd-7th groups, comprising 380 children (52% ♂ and 48% ♀), have been tested. The average intellectual development of the investigated children serves as evidence that the Tartar child does not differ in this respect from the Russian and other children.—B. N. Vishnevski (Leningrad).

3818. Binder, H. Die Helldunkeldeutungen im psychodiagnostischen Experiment von Rorschach. Zugleich ein Beitrag zur theoretischen Begründung des Experimentes. (The "chiaroscuro" responses in the Rorschach diagnostic psychological test. A

contribution to the theoretical basis of the test.) Pp. 123. 6 Sw. fr. Zürich: Orell Füssli, 1932.—The diagnostic value of the "chiaroscuro" and "gray" responses in the Rorschach test are reported as a result of a clinical study in which the test was given to psychopathic, neurotic and normal patients. On the basis of the results the author concludes that relatively more importance must be attached to central mood reactions in psychopathic personalities than in neurotic, and in neurotic than in normal; conversely, adaptivity to the peripheral or environmental stimulus plays a lesser role in the psychopathic personality than in the neurotic and in the neurotic than in the normal.—E. Fehrer (Bryn Mawr).

3819. Brown, A. W. The influence of distractions on mental test performance. *Psychol. Bull.*, 1933, 30, 706.—Abstract.—J. F. Dashiell (North Carolina).

3820. Burkersrode, J. Anweisung zu dem Testheft für die Teststellung der Gutbegabten des 4. Schuljahres. (Directions for the administration of the test to determine talented children of the 4th school year.) *Päd. psychol. Arbeit.*, 1933, 20, Part 2.—At the suggestion of the Leipzig Psychological Institute all fourth-year public-school children in Leipzig were examined by this test method. Points determining talent were exposition of single factors, combinations of factors, and formulation of a total verdict based on memory, faculty of speech, arithmetical faculty, thinking, and biological functions. Single tests numbering thirteen are described, and are followed by an explanation of how the examination should be carried on. The results are obtained by rules of evaluation and expressed by total verdict accomplishment curves. A supplementary leaf is also given for further observation of pupils who have been examined. This leaf is primarily for use with higher grade pupils and makes easier the judging of the doubtful cases; it also insures the highest possible certainty in judging the child through connection and comparison of the different methods of the test- and knowledge-examinations and of the observation by the supplementary sheet.—L. S. Selling (Institute for Juvenile Research).

3821. Collmann, R. D. A comparison of the intelligence of Victorian and American school children. *Aust. Council Educ. Res. Ser.*, 1934, No. 22, 11-18.—A representative sample of Victoria (Australia) school children were given the Otis Self-Administering Intelligence Test, Intermediate Examination, Form B. A total of 4034 ten- and eleven-year-old subjects were used. A comparison of the results obtained by testing the Victoria children with the published norms for the test obtained by application to American children of the same age range indicated that there were no significant differences in the intelligence of the two groups.—S. H. Newman (Clark).

3822. Cornell, E. L., & Cox, W. W. A performance ability scale. Examination manual. New York: World Book, 1934. Pp. iv + 88. \$1.50. Individual record blanks with age norms, 25 copies \$.90.—A manual of directions for the Cornell-Cox Performance Ability Scale. The directions for giving

and scoring are specific and detailed. In addition to directions the manual presents the functions of performance scales in general, the history and description of the specific tests of the Performance Ability Scale, and the interpretation of the scale. Tests included in the scale are the manikin-profile, block-designs, picture-arrangement, digit-symbol, memory-for-designs, cube-construction, and picture-completion. The criteria used in selecting the tests were that the tests should involve as many different kinds of content as possible, should be capable of presentation by non-verbal methods, and should measure a wide range of specific ability. The validity of the scale as a whole was determined by correlating it with the National Intelligence Tests, with the Binet, and with chronological age. These correlations are respectively .74, .79, and .78. The corresponding coefficients of alienation are .673, .607, and .623. Correlations between separate test items of the scale and the National Intelligence Tests range from .35 (manikin-profile) to .64 (digit-symbol). The reliability of the scale as determined by the retest method on 125 children after an interval of eleven months is .929.—C. C. Neet (Clark).

3823. Leventuev, P. I. Opyt provedenia kolektivnogo Bine. (Collective experiments of Binet applied.) *Probl. nats. pedol.*, 1, 262-274.—499 children (226 ♂ and 273 ♀) have been tested in one of the Moscow schools according to Binet's method as translated by Boltunov. In all ages the children of workers show a lower degree of intellectual development than the children of intellectuals. With increasing age this difference grows stronger. For the amelioration of the system of tests it is necessary: to carry on the task of efficient standardization; to widen the limits for a more exact age determination; to abolish as far as possible prolonged writing (fatigue); to withdraw some tests too much alike; to enlarge the system of tests applied to the zero-groups.—B. N. Vishnevski (Leningrad).

3824. Lorge, I. Retests after a ten-year period. *Psychol. Bull.*, 1933, 30, 707.—Abstract.—J. F. Dashiell (North Carolina).

3825. Marshall, A. J. The standardization of Spearman's "Measure of Intelligence" for Perth, Western Australia. *Aust. Council Educ. Res. Ser.*, 1934, No. 22, 23-50.—Spearman's "Measure of Intelligence" was administered to a representative sampling of boys and girls of from 9-14 years of age, residing in Perth, Australia. There was no difference between the test scores of boys and girls at corresponding ages. The children of parents of high occupational status obtained higher test scores than those whose parents were engaged in vocations classifiable as low. Correlation coefficients obtained between the Spearman test and (1) the Binet and (2) the Phillips tests were .78 and .85 respectively. Norms were constructed for the Spearman test, and the efficiency of its sub-tests was also determined.—S. H. Newman (Clark).

3826. McAlpin, A. S. Changes in the intelligence quotients of negro children. *J. Negro Educ.*, 1932, 1, 44-48.—All the children in the 3A and 5A grades of

the colored schools of the District of Columbia were given the Kuhlmann-Anderson test in an effort to determine how the IQ averages of the pupils varied with length of residence in the District. The 2A children born in the District had an average IQ of 98.1. The 3A children born outside the District had an average IQ of 92.1. Of those 5A children born in the District the median IQ was 95.1, while that of the 5A children born outside the District was 89.7. The higher median IQ for the children born in the District is believed to be due to the favorable environment enjoyed there. This statement, the author points out, is in accord with the point of view that "capacities need appropriate stimulation in order that consequent abilities may be realized."—H. S. Clapp (Children's Village, Dobbs Ferry, N. Y.)

3827. Moore, H., & Trafton, H. Equating test scores. *J. Educ. Psychol.*, 1934, 25, 216-219.—Four intelligence tests, viz., Terman (Form A), Otis S-A (Form A), Army Alpha (Form 8), and Miller (Form A), were given to a Mount Holyoke freshman class of 235. The scores on these tests and on two measures of scholastic aptitude were intercorrelated. The relative values of the different tests, as computed by Kelley's standard-measure method, are given.—J. A. McGeoch (Missouri).

3828. Park, J. L., & Meertens, J. L. F. H. Tests voor verstandelyke ontwikkeling op de lagere school. (Tests for mental development in the elementary school.) *Mensch en Maatschappij*, 1934, 10, 138.—The authors deal in particular with "group tests" which are easily applied. The American National Intelligence Tests for school children are explained in detail; in this system an intelligence quotient is used as an index of intellect during the years of development. The results of the tests point out that differences in intellectual capacity are not sufficiently taken into account in school education. The authors plead for the instituting of school classes of pupils of about equal capacity who can get an education like the present one. Groups of talented children or backward ones have to receive special teaching. The influence of surroundings on the pupil is treated too superficially. In the chapter on backward children the report of the British Mental Deficiency Committee is reviewed; in the chapter on talented children *Genetic Studies of Genius* by Terman is discussed. The results of examination with the help of a standard intelligence test demonstrate what a pupil can achieve in practice, but not what is his nature.—C. Rothe (Koloniaal Instituut).

3829. Segel, D., & Gerberich, J. R. Differential college achievement predicted by the American Council Psychological Examination. *J. Appl. Psychol.*, 1933, 17, 637-645.—Low correlation coefficients are obtained between scores on parts of the American Council Psychological Examination and differences between marks in college for English, foreign language, and mathematics. Similarly low, but stable, correlations are shown between scores on parts of the American Council test and differences between scores on standard tests for the three subjects. Multiple correlations of .467 and .582 were found between

parts (artificial language, arithmetic, opposites) of the American Council test and differences between foreign language and mathematics test scores respectively.—R. S. Schultz (Psychological Corporation).

3830. Sorenson, H. Mental ability over a wide range of adult ages. *J. Appl. Psychol.*, 1933, 17, 729-741.—A selection of 641 students was made from a group of 5500 attending the general extension courses at the University of Minnesota. The age range was from 16 to 70. Years of schooling and occupational status were held constant for the various age groups. The Minnesota College Aptitude Test and Reading Examination revealed that the curve for vocabulary ability increases with chronological age and that for paragraph meaning remains relatively constant. Mental habits of use and disuse are presented as possible explanations for the nature of the curves of adult ability in these tests. "Most experiments show a decline of abilities with age because the persons studied were out of practice, so to speak, with the intelligence test content."—R. S. Schultz (Psychological Corporation).

[See also abstracts 3812, 3814, 3815.]

CHILDHOOD AND ADOLESCENCE

3831. Amaldi, P. Elementi di antropologia dell' accrescimento e di patologia nervosa e mentale dell' infanzia e dell' adolescenza. (Elements of anthropology of growth and nervous and mental pathology of childhood and adolescence.) Lanciano: Carabba, 1933. Pp. 350.—A textbook intended to give future teachers the elementary and fundamental concepts pertaining to the physical and mental personality of children and adolescents in their gradual development and the most common deficiencies incidental thereto.—R. E. Schwarz (V. A. Facility, Northport, N. Y.)

3832. Anderson, J. E. Happy childhood. New York: Appleton-Century, 1933. Pp. 321.—A presentation for parents and laymen of the material gathered by the White House Conference on Child Health and Protection relative to the training and education of the child from infancy to adulthood. Emphasis is laid on the part played by the home and parents in providing opportunities for an adequate development. The equipment with which the child enters the world and the range of responses which these permit are considered. Following this the nature of maturational processes and the nature of the learning processes by which the child's responses are increased and modified are discussed. Practical problems of child training are dealt with relative to their significance in the total development instead of as temporary difficulties to be solved. The emergence of basic skills and intellectual abilities and the optimal environment for their growth and control are described. Particular stress is given to the question of drives and the manner in which obstruction of them gives rise to emotional behavior. Methods of control for emotional situations by training the child how to meet his problems adequately are suggested. The control of the simple habits of feeding, sleeping, dressing, elimination, and those making

for physical safety are shown to be an essential basis for a later unhandicapped development. The fundamental quests of the child in which he strives toward emotional, intellectual, and vocational independence are treated in detail. Treatments of fear and security, love and affection, and self-control and discipline deal particularly with aspects of emotional development. These are followed by a consideration of the acquisition of motor skills, the development of language and the search for reality, and the various developmental phases of the intellect and imagination. Social development, the acquisition of habits of self-reliance, proper sex education, and vocational guidance are also fully discussed. Recognition of the individuality of the child and modification of the training methods to meet the needs of the individual child are encouraged. A chapter is devoted to a discussion of the particular needs of the gifted child and one to the problems of the handicapped child. The family and the home are emphasized as the most significant aspect of the child's environment and home arrangements best suited to the growing child are proposed. The ultimate criterion used throughout for evaluating child training and education is whether or not they will lead to an independent and happy adulthood.—K. W. Braly (Minnesota).

3833. Bierens de Haan, P. *Misdadige kinderen, een psychologisch-paedagogische studie.* (Criminal children; a psycho-pedagogic essay.) Arnheim: Loghum Slaterus' Uitgev., 1932. Pp. 173.—An essay of which the greater part relates to psychological considerations, because these form the basis of pedagogic practice. The author believes in the theory which does justice as well to character as to surroundings. He says that the place of the child within the family may be one of the causes of criminality, and he is of the opinion that the middle one of three children has the best chance, an opinion different from those of former investigators. He states that the adolescent is not more primitive nor impulsive, but that the principal mark of child criminality is its primitive and impulsive character. The author divides character into three parts, viz., mental capacity, inner life and will capacity.—C. Rothe (Kolonial Instituut).

3834. Binder, R. M. *The Mooseheart conference.* *Psychol. Bull.*, 1934, 31, 292-294.—A summary of the addresses made.—J. F. Dashiell (North Carolina).

3835. Boege, K. *Arm und Reich vom kindlichen Standpunkt gesehen.* (Wealth and poverty from the viewpoint of the child.) *Zsch. f. päd. Psychol.*, 1932, 33, 169-184.—Study of a small number of pupils of all ages who were asked to tell all that they knew about "rich" and "poor." Among the results it is noted that the younger children give responses marked by personal observations more frequently than the older children, accustomed to use book knowledge entirely.—(Courtesy *Année psychol.*)

3836. Bryan, A. I. *Organization of memory in young children.* *Arch. of Psychol.*, 1934, No. 162. Pp. 56.—100 boys and 100 girls aged 5 and 6 were given 11 memory tests for various types of material, a vocabulary test, and the Stanford-Binet test. No

significant or reliable sex differences were found between the boys and girls tested. The central factor found is probably a memory factor, and it probably indicates a fundamental communality of function between simple retentivity and the more general ability which we term intelligence, as it is manifested and measured in young children. An analysis of the Stanford-Binet showed that it is predominantly a memory test on the early levels. Verbal ability was shown to be closely interrelated with memory ability.—E. M. Achilles (Columbia).

3837. De Feo, G. *Les impressions des jeunes sur les films de guerre.* (Impressions of the young from war films.) *Rev. int. du cinéma éduc.*, 1932, 4, 43-53; 141-150; 235-243; 322-330; 419-432.—Two questions were asked: "What do you think of war films? What ideas and feelings do they arouse in you?" Replies were obtained from 15,730 Italian children (10,155 boys, 5,575 girls). 19,831, or 86.06% of the responses, exalted war, referring to duty, patriotism, and honoring the dead. 2,317, or 13.94%, were opposed to war, on grounds of human fraternity and feelings of horror. The proportion is the same for provincial localities and large cities. Children of farmers furnish the greatest proportion of favorable replies on war.—(Courtesy *Année psychol.*)

3838. Espenschade, A. S. *An experiment in testing the motor ability of preschool and kindergarten children.* *Bull. Univ. Calif. Inst. Child Welfare*, 1931, 1-9.—Two problems are attacked, (1) the construction of a scale of motor ability tests for preschool and kindergarten children, and (2) the determination of age standards and sex differences by experimentation upon a nursery group, using the scale as constructed. The scale consisted of a series of 12 motor ability tests adapted to young children. Two groups, each containing 20 children, with ages ranging from 28-86 months, were subjected to the tests. The scale was found to be useful for measuring individual differences in children between the ages of two and one-half and five and one-half years. No sex differences were apparent in the tests, with one exception (ball throwing).—S. H. Newman (Clark).

3839. Ferro-Luzzi, G. *Contributo allo studio sulla fisiologia e patologia degli adolescenti in montagna.* (Physiology and pathology of adolescent youths at high altitudes.) *Arch. di fisiol.*, 1932, 31, 427-455.—(*Biol. Abst.* VIII: 10971).

3840. Fitzgerald, J. A. *The vocabulary of children's letters written in life outside the school.* *Elem. School J.*, 1934, 34, 358-370.—Elementary school children of several hundred city and rural school systems in ten states were asked to submit letters which they had received. 3,184 personal letters written in life-situations by children of the fourth, fifth, and sixth grades were then used as the data for this study. These letters were written in forty-one states of the United States, and most of them were dated in 1929 and 1930. In the letters, comprising 461,321 running words, 7,340 different words found in *Webster's New International Dictionary* and 145 expressions not found in this dictionary occurred. "The frequencies of use and of error of each word for

each grade were recorded." The 2,106 words occurring eight or more times are listed. Of these, "approximately 2,000 were used in letters of all three grades." Since these 2,106 words and their repetitions make up approximately 97% of the running words, "this list is the central core of the vocabulary which elementary-school children use in letters written in life outside the school."—*P. A. Witty* (Northwestern).

3841. *Foot, S. Parental influence and careers. Human Factor*, 1934, 7, 188-192.—A discussion, by the careers master of an English public school, of the unfortunate results which often follow when parents regard it as their function to choose their sons' careers.—*M. Horsey* (National Institute of Industrial Psychology).

3842. *Foster, J. C. Busy childhood*. New York: Appleton-Century, 1933. Pp. 303.—This volume makes available to parents the material gathered by the White House Conference on Child Health and Protection relative to the play and occupation of children. The important function of play in the development of the child is considered with respect to physical, intellectual, and social growth. The play of the infant is discussed in detail, including exercises useful in encouraging physical development, toys for manipulation, and early social games. Dangers in over-stimulation are also considered. For the older children active games tending to promote physical health, motor coordination, and correct posture are described. The desirability of keeping these games real play of a spontaneous nature instead of making them mere exercises is pointed out. Toys suitable for different age levels are considered. A variety of toys, selected because of their interest to the child and their safety, durability, and adaptability to various kinds of play are suggested. The importance of providing material with which the child can construct things, for the development of skills and creative imagination, is also considered. Social and dramatic play is discussed relative to the contributions it can make toward the child's social development, and intellectual games as well as lists of books and music for various age levels are given. Further material treats of home and family arrangements conducive to the more desirable play and occupation of the child. Allowing the child an increasingly important part in family and home affairs is regarded as a valuable means of encouraging attitudes of responsibility and widened interests. Throughout the book attention is called to many recreational and educational facilities of the home that might ordinarily be overlooked. Special problems and opportunities presented by holidays and vacations are also considered. Additional material is concerned with the utilization of community organizations and recreational facilities, and with the coordination of home and school life.—*K. W. Braly* (Minnesota).

3843. *Garland, J. The road to adolescence*. Cambridge, Mass.: Harvard Univ. Press, 1934. Pp. 301. \$2.50.—*R. R. Willoughby* (Clark).

3844. *Gesell, A. The educational status of the preschool child. School & Soc.*, 1934, 39, 495-500.—The quotation "The education of the preschool child

must be conceived in terms of growth instead of in terms of instruction and training" summarizes the theme of the address. Procedures consistent with this view are suggested.—*H. L. Koch* (Chicago).

3845. *Griffiths, R. Children's phantasies. Australas. J. Psychol. & Phil.*, 1932, 10, 259-268.—Imaginative life plays an important part in development up to the seventh year. Favored by the impossibility of maintaining concentrated attention and by a need of refuge against realities, it is manifested in many ways in all children. Observation permits the perception of a basic unity. In a conquest of reality they engage in constant oscillation between objective life and turning within, where they try to understand and stabilize their acquisitions. Resolution of a problem proceeds in this oscillatory fashion.—(Courtesy *Année psychol.*)

3846. *Groth, G. Beziehungen zwischen intellektueller und künstlerisch-technischer Begabung an einem Mädchenlyzeum*. (Relations between intellectual and artistic-technical ability in a girls' high school.) *Zsch. f. päd. Psychol.*, 1932, 33, 199-211.—*R. R. Willoughby* (Clark).

3847. *Grunewald, F. Synchrone Registrierungen von Durchgängen (Passagen) mit disjunktiver Einstellung bei Schulkindern*. (Records of synchronism in passages with a disjunctive attitude in pupils.) (Inaugural dissertation.) Leipzig: 1932. Pp. 79.—Six children from 6 to 13 years were required to press a Morse key when a pointer passed before a mark. The subject had to use a finger designated by a number—from 1 to 5—indicated between 0.810 and 0.135 seconds before the passage. The errors are all of anticipation when the signal is given long before the passage; they are increasingly of delay as the space decreases between the signal and the passage. The errors increase with the complexity of the task almost equally with children and adults, and decrease slightly with age.—(Courtesy *Année psychol.*)

3848. *Harrower, M. R. Social status and the moral development of the child. Brit. J. Educ. Psychol.*, 1934, 4, 75-95.—A control study to check with children of a different nationality the findings previously reported for Swiss by Piaget. Children of the same social level respond as did Piaget's in their reactions to cheating and punishment; children of a higher social level react with a more advanced type of response than those of similar age at the lower social level. Conclusion is reached either that Piaget's stages of development are not universal or that in certain environments those stages can be so far accelerated that children exhibiting characteristics of the third and most developed are to be found at the ages of the first.—*K. M. Cowdery* (Stanford).

3849. *Heertje, H. Het ateliermeisje van Amsterdam*. (The working shop girl in Amsterdam.) *Menschen Maatschappij*, 1934, 10, 39-55.—An inquiry into the social and economic conditions of the working girl in Amsterdam, Holland. The clothing industry in Amsterdam, comprising large industry, small industry, and house industry, has in all 13,500 laborers, of which 11,000 are women; there are at least 1600 work places. The confection industry is

quickly supplanting the measure industry; manufacturing work replaces professional work; consequently the number of young workers has gradually increased. At present there are 3300 girls below 18 years of age against 7600 women both married and unmarried; about 1000 girls aged 14 years are yearly taken into service. The increasing lack of training is of great importance to the development of the working girl; but she does not demand anything of the work, but seeks only a source of income. Wages are rather low; they could not be indicated exactly because most work is piece work. The girls as well as the married women, the latter mostly working because the earnings of the husband are insufficient, are satisfied with the wage. Feminine vanity, which makes the girls increase their quantity of work, causes an economic depreciation of the work. The clothing industry must be considered to be injurious to the feminine organism.—C. Rothe (Kolonial Instituut).

3850. Hetzer, H. *Kind und Schaffen, Experimente über konstruktive Betätigungen im Kleinkindalter*. (Creative ability in children; experiments on constructive occupations of preschool children.) *Quellen u. Stud. z. Jugendl.*, 1931, 7. Pp. 108. RM. 6.—Hollow wooden cubes were treated unspecifically by children until the age of 9 months, but from then on supplied an outlet for functional, constructive activity in which a conception of relationships became manifest. From the end of the second year children began to appreciate the results obtained, which at first were accidental but during the fourth year usually premeditated. Specific treatment of plasticine was not definitely present until the fourth year, but with the beginning of the second year both paper and sand were accidental but during the fourth year usually constructively from the beginning of the third year. In the fourth year most children built definite structures out of wooden construction sets, though as late as the seventh year 50% of them were still unconcerned about the meaning of their products. Children who were denied materials required for constructive play improvised them, which suggests the functional importance of this type of occupation, increasing with age. Two-year-olds spent 67% of their play time in day-dreaming and dealing with distractions, but this was reduced to 35% the next year and continued to decline. The six-year-olds devoted 92% of their play time to concentrated play activity. Since this development is typological, educators should avoid trying to influence the child's way of treating materials by instruction, but rather supply the proper materials for each developmental stage.—H. Beaumont (Kentucky).

3851. Hilgard, J. R. The effect of early and delayed practice on memory and motor performances studied by the method of co-twin control. *Genet. Psychol. Monog.*, 1933, 14, 493-567.—The study concerns the familiar Yale Clinic twins C and T, who were, at the beginning of this study, 4½ years old. This is the fifth major research in which they have appeared in the literature. The experiments had to do with memory for digits; memory for objects; skill in throwing rings; skill in cutting; and skill in walking

boards. Each child served as practice subject and as control subject during the course of the research. Delayed practice (the practiced twin being at that time older than when the other twin was practiced) resulted in greater gain on digit memory, object memory, ring-toss, and to some extent errors in walking the boards. Three and six months after practice, the performances of the twins on all tests were as similar to each other as at the beginning of the experiment. This points to "the importance of the general developmental factors." The bibliography contains 36 titles.—F. M. Teagarden (Pittsburgh).

3852. Hsiao, H. H. [Experimental child psychology.] Shanghai: Chung Hwa Book Co., 1933. Pp. 120. \$.70 mex.—This textbook of experimental child psychology has grown from the author's syllabi used with the students at the National Central University, Nanking, and deals primarily with the psychology of the normal child. It covers the following chapters: (1) modern theories of mental development; (2) principles and methods of the study of child psychology; (3) development of motor abilities; (4) development of space and color perception; (5) growth of intelligence; (6) linguistic development; (7) evolution of emotional behavior; and (8) development of sociality (social behavior). Important experimental data from various sources are cited.—C.-F. Wu (Nat. Res. Inst. Psychol., Shanghai).

3853. Ibrahim, J. *Körperliche Erkrankungen als Ursache von Erziehungsschwierigkeiten beim Kleinkind*. (Physical diseases as causes of educational difficulties in the little child.) *Zsch. f. Kinderforsch.*, 1933, 41, 298-305.—Few physical diseases or ailments in themselves produce educational difficulties. Among these are encephalitis, meningitis, Heubner-Herter's disease (intestinal infantilism), vegetative neurosis, severe cases of rickets, eczema, etc. Ordinarily the later difficulties arise from the conditioning effected by the environment of the invalid rather than from the disease.—K. C. Pratt (Michigan Central State Teachers College).

3854. Illge, W. *Das Religiöse im Seelenleben des Volksschülers*. (Religion in the mental life of primary school pupils.) *Zsch. f. päd. Psychol.*, 1932, 33, 331-346; 366-374.—From compositions of pupils and questionnaires to which they responded the author obtained observations on the religious concepts of children from 11 to 12 years (300 subjects). The occasions which invite the pupils to think of God arise nearly always from painful or sorrowful events. Otherwise their responses seem strongly marked by the ideas they have been taught.—(Courtesy *Année psychol.*)

3855. Kerschbaum, P. *Das Ernstspiel des Jugendlichen*. (The serious play of adolescents.) *Holz-minden i. Weserbergland*: Hüpke, 1933. Pp. 95.—R. R. Willoughby (Clark).

3856. Kiessling, A. *Der Unfug als jugendpsychologische Erscheinung*. (The misdemeanor as a characteristic of adolescence.) *Indus. Psychotechn.*, 1933, 10, 382-383.—It is argued that the misdemeanor is a juvenile social act, playful, directed against the fetishes of the present order, not committed for

personal gain, but peculiar to the adolescent period.—*H. J. P. Schubert* (Buffalo).

3857. Kiessling, A. *Der Unfug als jugendpsychologische Erscheinung.* (Nuisance as a phenomenon of youth psychology.) *Zsch. f. päd. Psychol.*, 1934, 35, 109-113.—As long as man exists, nuisance is being committed. Nuisance actions are directed against existing orders of some type or another. This is the destructive aspect of nuisance. The existing order is not a product of the nuisance maker, but it is usually a creation of the adult generation. In general, the nuisance is not committed against the order *per se* but against its representatives. The direction of nuisance toward a person may be either intentional or unintentional, and it is called the "personal" aspect of nuisance. On account of these characteristics, nuisance is comparable to such forms of behavior as rudeness, impudence, committing an offense or crime, also to the so-called destructive play. Nuisance making must be considered a form of social behavior. Wherever there is a nuisance maker there is also a nuisance sufferer, a nuisance "audience." Without admirers nuisance making lacks an essential element. Another feature of nuisance is its amusement character, of which three sub-aspects are distinguished: the sheer joy of laughing, malicious joy, and the social effect of farce. Closely connected with the amusement aspect is the absence of any egotistical, profit motive in nuisance. Nuisance is in a sense beyond good and bad. The non-profit motive differentiates nuisance from the abovementioned forms of behavior. The main aspect of nuisance is its "juvenile" character; youth is the period of nuisance making. With increasing age it disappears. Nuisance making is the main characteristic of "juvenile" persons and of "juvenile" mentality; it is their typical form of social behavior.—*W. Reitz* (Chicago).

3858. Klamroth, E. *Mutter und Tochter. Ein Beitrag zur Psychologie der reifenden Mädchens.* (Mother and daughter. A contribution to the psychology of the developing girl.) Langensalza: Beyer, 1934. Pp. 169.—*R. R. Willoughby* (Clark).

3859. LaBrant, L. L. A study of certain language developments of children in grades four to twelve inclusive. *Genet. Psychol. Monog.*, 1933, 14, 387-491.—The subjects who furnished data for this study were 986 public-school pupils in grades 4 to 12 inclusive and 21 psychologists who were contributors to *The Psychologies of 1930*. The clause is the unit of comparison, and "since every finite predicate indicates the existence of a clause, approach to the investigation is made through the tabulation of predicates." The children were asked to write in class, and these compositions were compared with each other and with passages from *The Psychologies of 1930*. It was found that "complexity of sentence structure as indicated by the ratio of subordinate to main predicates increases at least until age 16." This "appears to be dependent upon chronological as well as upon mental age." The "only sex difference revealed by a comparison of the papers of boys and girls is the tendency of the girls to write more words in a given

length of time." Analyses are given on adverbial, adjective and substantive clauses also. "High intelligence quotient does not appear to exert a marked influence in hastening the use of complex sentence structure." The writings of the psychologists were found to be more complex than those of the pupils. The bibliography contains 32 titles.—*F. M. Teagarden* (Pittsburgh).

3860. Lavrova-Bikchental, Z. *Fizicheskoe sostoianie moskovskikh tatarskikh shkolnikov.* (Physical status of Moscow Tartar school children.) *Probl. nats. pedol.*, 1, 41-54.—The status of Moscow Tartar school children of the pre-pubescent period is less satisfactory, with regard to their physical development, than that of Moscow Tartar school children of the pubescent period. Hence the index of energy and also the vital index of school children of the pre-pubescent period are lower than the standards. Morphologically Moscow Tartar school children are characterized as short-legged; this is confirmed by their morphological index.—*B. N. Vishnevski* (Leningrad).

3861. Lazarsfeld, P. *Jugend und Beruf.* (Adolescence and occupations.) *Quellen u. Stud. z. Jugendk.*, 1931, 8. Pp. 206. RM. 10.—Seven studies of occupational attitudes of adolescents and children, with a summary and bibliography. A study of 2709 school children revealed that 77% of the boys had chosen occupations which they had no chance to enter. Only 40% of them had a factual knowledge of their "chosen" work. At 12 to 14, 6.5% of the boys were still undecided. Of boys in larger cities, 33% chose occupations without definite motivation. These choices reflected the economic structures of their respective cities and closely followed fluctuations in these structures. Of 600 girls between 11 and 17 in smaller towns, 37% of the less intelligent chose work requiring special training, 66% of the more intelligent chose organizational work. The motive of 44% of the girls from good homes was preparation for marriage; of 32% of those from poor homes it was independence. Especially when little special ability was required for the father's occupation it tended to determine the son's choice. Of boys employed as apprentices, 74% enjoyed their work at 15, 42% at the age of 22.—*H. Beaumont* (Kentucky).

3862. Lederer, E. v. *Kurze Mitteilung über Kapillarmikroskopische Untersuchungen bei Säuglingen und Oligophrenen.* (A brief report concerning capillary-microscopical investigations upon sucklings and oligophrenics.) *Zsch. f. Kinderforsch.*, 1933, 41, 349-353.—Capillary microscopy of 103 newborn infants and sucklings, 100 oligophrenics, and 100 normal children supported the morphogenetic capillary theory of Jaensch and Höpfner. Mental retardation is correlated with the persistence of a capillary structure physiologically normal in the newborn child.—*K. C. Pratt* (Michigan Central State Teachers College).

3863. Leyen, R. v. *Pflegestellenkinder.* (Foster children.) *Zsch. f. Kinderforsch.*, 1933, 41, 246-279.—Case studies.—*K. C. Pratt* (Michigan Central State Teachers College).

3864. Maller, J. B. Correlations among measures of mental ability, physical health, and social-economic status. *Psychol. Bull.*, 1933, 30, 708-709.—Abstract.—J. F. Dashiell (North Carolina).

3865. Maxfield, K. E. The pre-school blind child; a preliminary study. *Teach. Forum (Blind)*, 1934 (Mar.), 62-65.—After a brief review of information given by various authors regarding the education of the pre-school blind child, the author presents data which have been obtained by the American Foundation for the Blind, since 1931, for guidance in working with the pre-school visually handicapped child. The results of a survey of 110 pre-school blind children have been analyzed and the following conclusions are presented: (1) more detailed developmental records for blind babies should be kept; (2) analysis of suitable play materials needs to be made; (3) there is need of research regarding differences between visually handicapped children and sighted kindergarten children; (4) methods of teaching such children to walk are necessary, as walking is closely linked with development of other important habits, which may be needlessly postponed in the blind child; (5) there is great need of appropriate mental tests for the pre-school blind child, to enable the worker to determine more satisfactorily some measure of degree and type of intelligence present in these children during the first years of life.—S. S. Hawk (Southern California).

3866. McFie, B. S. Behaviour and personality defects in school children. *Brit. J. Educ. Psychol.*, 1934, 4, 30-46.—Of 697 children in four boys' and four girls' schools 46% were reported as showing some type of disorder. Personality deviations were shown by 25%, behavior disorders by 16%, habit disorders by 24%, scholastic difficulties by 6%. Cases of children of similar age referred to a hospital show relatively higher proportions of behavior and habit disorders than do the school group. Teachers report a relatively small proportion of cases of habit disorder responding to treatment.—K. M. Cowdery (Stanford).

3867. Müller, C. Untersuchungen über kindliche Schlussprozesse. (Studies of the child's methods of reaching a logical conclusion.) *Arch. f. d. ges. Psychol.*, 1932, 86, 407-458.—Using carefully adapted categorical syllogisms of the 4th figure in different moods, the premises of which were presented orally to children at 11 age levels (ages 6 to 17, 5 boys and 5 girls at each level) the investigator studied the process of drawing the conclusion, as evidenced by introspective reports. As a control series letters were substituted for definite concepts. A comparison was made between the 4th figure and the author's earlier results with the 1st, 2nd and 3rd figures; also between the author's results and those of Schüssler, Meyer and Erismann. The mental processes of the children are reported in detail. Schüssler's finding that children do not give the correct conclusion of a syllogism of the 4th figure before the 13th or 14th year was confirmed. Also in agreement with Schüssler, the writer found conclusions of the 3rd figure easier than those of the 4th; those of the 2nd figure easier than those of the 3rd; conclusions of the 1st figure were the easiest of the four. The greatest increase in the

capacity for syllogistic thought was found between the first and second, and between the second and third school years, which is in accord with the findings of others, notably Piaget and Meyer. Piaget's assertion that logical thought does not occur before 7 or 8 years of age is refuted.—J. J. Carlson (Aurora-on-Cayuga).

3868. Naffin, P. Das Verhalten taubstummer Schulkinder. (The behavior of deaf-mute school children.) Zeulenroda i. Thür.: Sporn, 1933. Pp. 107.—R. R. Willoughby (Clark).

3869. Nicoli, P. F. La psicologia dell'adolescenza. (The psychology of adolescence.) *Riv. ped.*, 1933, 26, 749-761.—R. Calabresi (Rome).

3870. Nordman, D. Eveil de l'intelligence et du caractère chez l'enfant. (Awakening of intelligence and character in the child.) *Loire méd.*, 1933, 47, 174-178; 220-226.—The child is born neither good nor bad, but it can be said that he is born without defect. Psychic anomaly can be conquered by medical treatment and adequate pedagogy.—Math. H. Piéron (Sorbonne).

3871. Pouillard, G. Essai psychogénétique sur la perception de la troisième dimension dans l'espace. (Psychogenetic essay concerning the third spatial dimension.) *J. de psychol.*, 1934, 31, 88-151.—This paper concerns the evolution in the child of the sensori-motor and representative processes essential to perception of the third dimension. While most of the material concerns the author's researches on children ranging in age from 3 months to 3 years, there is a comprehensive review of the literature and a list of 38 citations. In his experiments on the perception of depth, the author used children from 6 to 36 months of age. Objects were placed before them at different distances and their reactions were interpreted as positive if they made definite gestures in the direction of the object, as doubtful if they made slight gestures, and as negative when no gesture was present, even though convergence may have taken place. Positive reactions increased steadily with age. The several other experiments on such factors as aerial perspective, relative movement, etc., were carried out in a somewhat similar fashion and with similar results. The author believes that spatial perception is syncretic, involving a resolution of facilitating and inhibiting reactions, rather than a merely synthetic process such as that posited by the associationists. Any one of a number of factors such, for example, as accommodation, retinal disparity, and aerial perspective may lead to perception of the third dimension. However, the normal condition is one in which all of these are syncretized. The question of the inheritance of spatial ideas is discussed and the author concludes that the child is structurally preadapted for perception of the third dimension.—N. L. Munn (Pittsburgh).

3872. Pratt, K. C. Specificity and generalization of behavior in new-born infants. A critique. *Psychol. Rev.*, 1934, 41, 265-284.—The terms *generalization* and *specificity* require more careful definition. Their significance is relative to the point of reference. Specificity entails a relative limitation in types and

range of stimuli, a specificity of receptor area and the multiplicity of effector segments involved. The main trend is from generalized to specific forms of behavior, but exceptions occur, such as the generalization of responses to previously inadequate stimuli in learning. The term *generalized* is applicable to the differentiation of part activities within a total integrated pattern. Irwin's misleading term "mass" behavior should be changed to "massive," to indicate generalized states in which smaller as well as larger muscle groups are in action. A method for future procedure in developmental studies is recommended.—A. G. Bills (Chicago).

3873. Rosenthal, H. *Der Beginn der Pubertät bei jüdischen Kindern.* (The beginning of puberty in Jewish children.) *Zsch. f. päd. Psychol.*, 1932, 33, 62-69.—A review of data presented by various authors on the subject of the very precocious development of Jewish children.—(Courtesy *Année psychol.*)

3874. Schiller, B. *Verbal, numerical and spatial abilities of young children.* *Arch. of Psychol.*, 1934, No. 161. Pp. 69.—The research was concerned with an analysis of representative verbal, numerical, and pictorial or spatial elements constituting group tests designed to measure the general intelligence of young children. 189 boys and 206 girls, homogeneous with respect to age, parentage, schooling and socioeconomic environment, were tested with a battery of four verbal, three numerical and five spatial-manipulation tests, the results for the sexes being treated separately. Girls were found to be better in the Goodenough test, and boys in Army Beta, Otis, and arithmetic reasoning. The average intercorrelation of all 12 tests was the same for both sexes, .5580. The verbal tests correlated highest among themselves. The emphasis is no longer on innumerable specific abilities or on a single all-pervasive one, but rather on linkages among the former sufficiently powerful and coherent to detract from the importance of the latter.—E. M. Achilles (Columbia).

3875. Schmeing, K. *Ideal und Gegenideal in der jugendlichen Entwicklung.* (Ideal and counter-ideal in adolescent development.) *Zsch. f. päd. Psychol.*, 1934, 35, 104-109.—Although some investigators have denied, or at least have found little evidence for, the existence of negative ideals and their influence upon child development, Schmeing's investigation in four Berlin schools, involving 1083 pupils between the ages of 9 and 20, gives ample evidence of the existence of a counter-ideal of somewhat the same scope as the positive ideal. Spontaneously written compositions (10 minutes) on the questions: "(1) To whom (acquainted person) would you like to be most similar, and why? (2) To whom would you like to be least similar, and why?" formed the basic data of the study. Only 2½% (about equally distributed for the two questions) of the pupils failed to respond to their themes. The analysis reveals that both forms of ideals are to a great extent functions of the developmental stage and of the local and temperamental environment of the pupils. While generally the positive ideal is the more dominant one, the negative ideal taking secondary place, conditions may arise

which reverse the order of influence. Schmeing concludes that the negative ideal is of considerable influence in the development of youth and that its investigation deserves greater attention of psychologists and educators.—W. Reitz (Chicago).

3876. Schuster, G. *Beiträge zur Psychologie der Reifezeit.* (Studies on the psychology of puberty.) Bottrop i. W.: Postberg, 1933. Pp. 77.—R. R. Willoughby (Clark).

3877. Shumskii, I. P., & Mansurov, S. *Psikhologicheskii uroven russkikh i tatarskikh detei po Rossolimo.* (The psychological level of Russian and Tartar children by the Rossolimo method.) *Probl. nats. pedol.*, 1, 202-229.—In Moscow 436 Tartar and 240 Russian children were investigated by the collective method of Rossolimo. The average psychological level of children at schools situated in centers populated by workers is somewhat higher than in other regions. The industrial activity of the family has a decisive influence on the development of the psychology of children. This is clearly seen from the investigation of the memory and the higher psychological processes of the Tartar children. The data of the investigation do not reveal any substantial difference between girls and boys or between Tartars and Russians.—B. N. Vishnevski (Leningrad).

3878. Stern, L., Williams, C. A., Eddingfield, I. D., & Barnhurst, A. L. *A study of the behavior problems of public school children in Allentown and in the Juvenile Court of Lehigh County, Pennsylvania.* Philadelphia: Pennsylvania Committee on Penal Affairs of the Public Charities Association, 1932. Pp. xvi + 133.—A sample of 48 children referred for behavior problems by the schools, the police, and the social agencies was surveyed with respect to such factors as sex, age, frequency of offenses, race, religion, place of residence, place where the offenses were committed, where leisure time was spent, IQ, school achievement, birth order, size of family, home ownership, size of home, parental occupation, receipt of charity aid, "broken homes," foreign birth, unsatisfactory home conditions, lodgers in the home, influence of other delinquents, unmarried parentage, etc.—L. Ackerson (Institute for Juvenile Research).

3879. Watson, G. *A comparison of the effects of lax versus strict home training.* *J. Soc. Psychol.*, 1934, 5, 102-105.—As part of an elaborate questionnaire study, 17 questions indicating strict home training were included. The results for 230 graduate students in education indicate that children who were severely disciplined usually became adults who hated their parents, quarreled with associates, were unable to lead mature and independent lives, and were socially maladjusted, over-conscientious, fearful, and unhappy. This severity in home discipline was associated with poor marital adjustment on the part of the parents, with social and economic handicaps, and with a lack of modern religious ideas. Step-parents were not necessarily more strict than own parents.—E. B. Newman (Harvard).

[See also abstracts 3386, 3387, 3393, 3552, 3570, 3635, 3646, 3647, 3648, 3733, 3775, 3798, 3821.]

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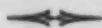
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